

TRAFFIC IMPACT ANALYSIS

VILLAGE AT ATLANTIC SHORES HALLANDALE BEACH, FL



Project # 040661009
November 2015
Revised February 26, 2016
Revised March 31, 2016
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Prepared by:
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West Palm Beach, Florida

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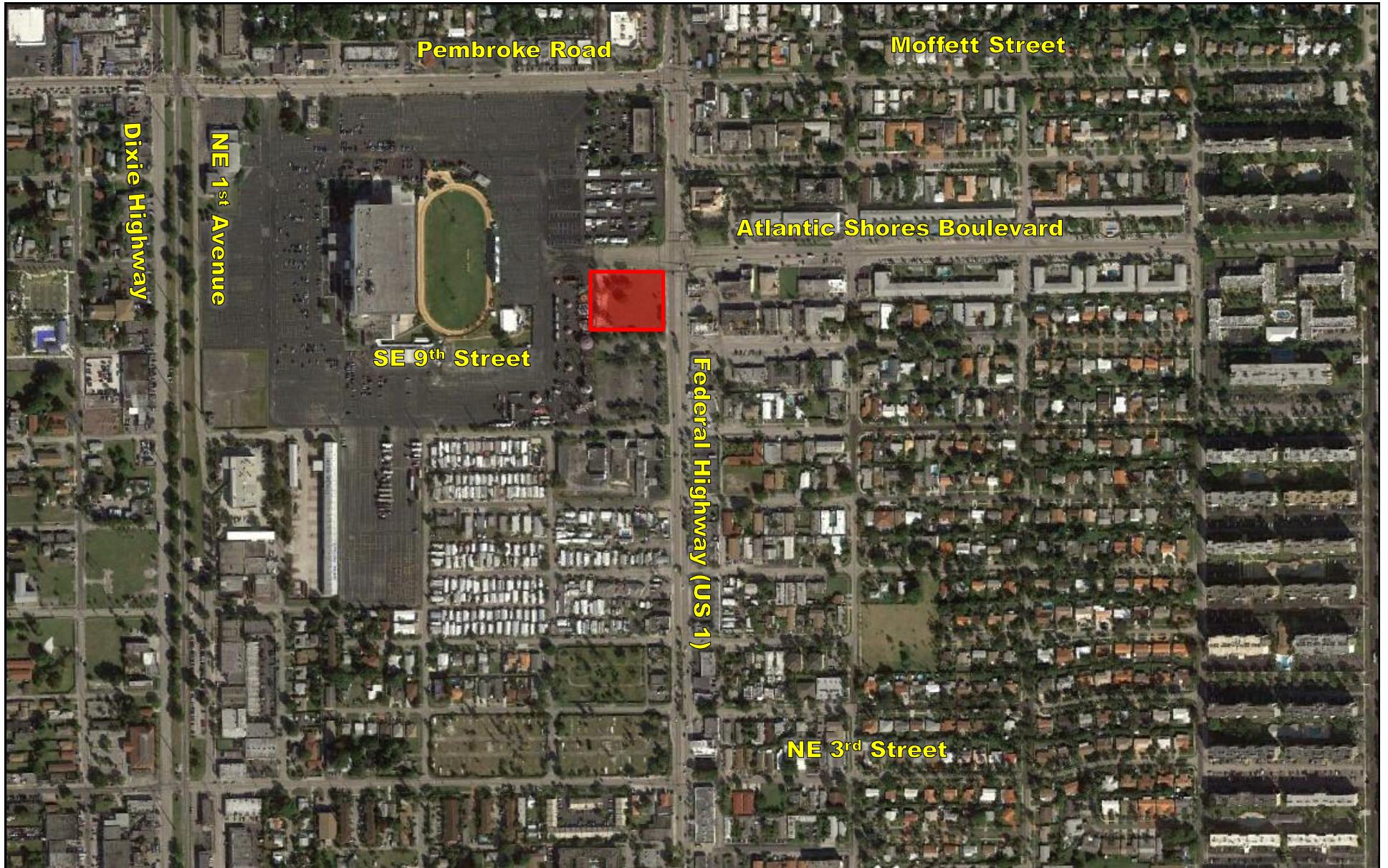
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INTRODUCTION

The Village at Atlantic Shores is a proposed office/commercial retail site located at the southwest quadrant of North Federal Highway (US 1) & Atlantic Shores Boulevard in Hallandale Beach, Florida. *Figure 1* illustrates the location of the proposed development. A site plan is included in Appendix A.

Kimley-Horn and Associates, Inc. has prepared this traffic impact analysis for submittal to the City of Hallandale Beach. The purpose of the study is to assess the project's impact on the surrounding roadway network and determine if adequate capacity is available to support future traffic volumes. This report summarizes the data collection, project trip generation, distribution and link analysis.

Consistent with the City of Hallandale Beach's Development Review Procedures – Impact Evaluation submission requirements (City Code Section 32-788(g)), traffic conditions were examined at vehicular access points to the site as well as major street intersections within a 1,000 foot radius of the site and roadways within 1 mile of the site.



LEGEND



SITE

FIGURE 1
SITE LOCATION
VILLAGE AT ATLANTIC SHORES
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DATA COLLECTION

To determine traffic conditions on the surrounding network, intersection turning movement counts were performed at several intersections in the vicinity of the site. Below is a summary of the intersections included in this analysis.

Intersection Volume Data

Turning movement counts were collected for the a.m. (7:00 a.m. to 9:00 a.m.) and p.m. peak period (4:00 p.m. to 6:00 p.m.) at the following intersections:

- Pembroke Road & N Dixie Highway
- Pembroke Road & NE 1st Avenue
- Pembroke Road & N Federal Highway/US 1
- Atlantic Shores Boulevard & N Federal Highway/US 1
- NE 3rd Street & N Federal Highway/US1

The above turning movement counts were conducted during typical weekday conditions on either Thursday, April 23, 2015 or on Wednesday, October 28, 2015. The volumes were collected in 15-minute intervals and the peak hour was determined for each intersection. The FDOT peak season conversion factor was applied to the traffic counts to adjust the traffic to peak season volumes. The turning movement counts and FDOT peak season factor category report are included in *Appendix D*.

PROJECT TRAFFIC

Project traffic used in this analysis is defined as the vehicle trips expected to be generated by the project, and the distribution and assignment of that traffic over the study roadway network.

Existing and Proposed Land Uses

The project site is currently vacant. The proposed use will be a total of 31,174 square feet of office/commercial uses in two two-story buildings. For analysis purposes, it was assumed that the first floor of the buildings will be commercial retail use and the second floor of the buildings will be office use.

Trip Generation Potential

The trip generation potential of this facility has been calculated using rates and equations published for Land Use 710 (General Office) and Land Use 820 (Shopping Center) by the Institute of Transportation Engineers (ITE) in the *Trip Generation Handbook, Ninth Edition*. Pass-by capture credits for the commercial retail (Shopping Center) use were calculated based upon percentages published in the *Trip Generation Handbook*.

Table 1 summarizes the trip generation potential in the weekday daily, a.m. and p.m. peak hour conditions.

Table 1
Village at Atlantic Shores – Trip Generation Determination

Land Use	Intensity	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			Total	Inbound	Outbound	Total	Inbound	Outbound
GROSS TRIPS								
Office	16,722 square ft	337	46	40	6	97	16	81
Retail	14,452 square ft	1931	14	9	5	164	79	85
	<i>Subtotal</i>	2268	60	49	11	261	95	166
INTERNAL CAPTURE								
Office		54	3	1	2	8	2	6
Retail		54	3	2	1	8	6	2
	<i>Subtotal</i>	108	6	3	3	16	8	8
DRIVEWAY VOLUMES		2268	54	46	8	245	87	158
PASS-BY TRIPS								
Retail	68.4%	1321	8	5	3	107	50	57
NET NEW TRAFFIC		947	46	41	5	138	37	101

Trip generation rates used are published by the Institute of Transportation Engineers (ITE) in *Trip Generation, 9th Edition*

Office (Land Use 710)

AM Peak Hour: $\ln(T) = 0.80 * \ln(\text{ksf}) + 1.57$ (88% inbound, 12% outbound)

PM Peak Hour: $T = 1.12 * (\text{ksf}) + 78.45$ (17% inbound, 83% outbound)

Shopping Center (Land Use 820)

AM Peak Hour: $T = 0.96 \text{ trips / 1,000 SF}$ (62% in, 38% out)

PM Peak Hour: $\ln(T) = 0.67 * \ln(X) + 3.31$ (48% in, 52% out)

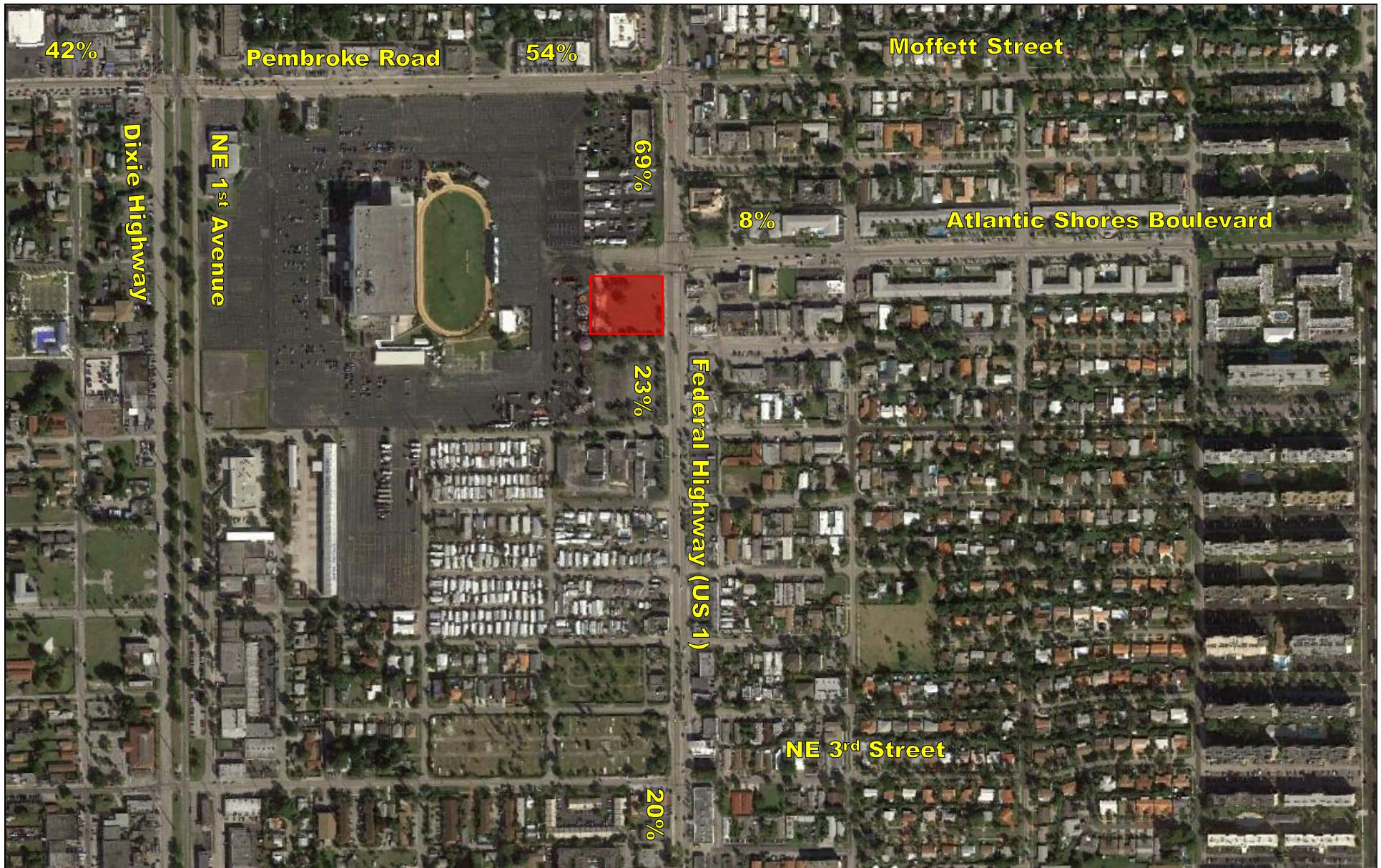
Pass-by: $\ln(T) = -.29 * \ln(X) + 5.00$

Trip Distribution

The Year 2035 Southeast Florida Regional Planning Model (SERPM 6.5.4) was used to determine project traffic distribution on the external roadway network at project buildout. The SERPM model output is included in this report in *Appendix C*.

Traffic Assignment

The site traffic was assigned to the surrounding roadway network using the distribution information described above. *Figure 2* illustrates the project traffic assignment percentages to the surrounding roadway network.



LEGEND



SITE

FIGURE 1
2035 TRIP DISTRIBUTION
VILLAGE AT ATLANTIC SHORES
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EXISTING TRAFFIC

Existing traffic conditions were determined based upon actual traffic volumes counted at the study intersections with an adjustment to peak season conditions based upon a peak season adjustment factor published by FDOT.

FUTURE TRAFFIC

Future background traffic conditions for year 2020 were determined by adjusting existing traffic volumes with a background growth rate plus traffic generated by committed projects in the area. A review of traffic volumes on roadways in the vicinity of this site determined that the three-year growth rate is 1.53%. For the purposes of this analysis, future growth was calculated as 0.5% plus committed development traffic. Total buildout traffic volumes considered in this analysis are the sum of the 2020 background traffic volumes and the expected project traffic volumes.

LINK ANALYSIS

The analysis has been conducted to evaluate year 2020 traffic conditions. Link data was provided in tables published by the Broward County MPO. Relevant excerpts from these tables are provided in *Appendix B*. The project traffic was assigned to major roadway links within 1 mile to determine the project impacts in the immediate vicinity of the project. Table 2 provides a summary of the roadway link analysis. As shown in this analysis, the segments of Federal Highway (US 1) between Pembroke Road & Hallandale Beach Boulevard and Pembroke Road between I-95 and Federal Highway (US 1) are currently operating at LOS F. The remaining roadways in the vicinity of the site currently operate at an acceptable level of services. As shown in this table, project traffic will not result in a change in level of service on any roadway segment.

TABLE 2
VILLAGE AT ATLANTIC SHORES
PM TWO-WAY PEAK HOUR SIGNIFICANCE CALCULATIONS (2020)

Roadway From	Roadway To	Roadway Class	Lanes	LOS D* Service Volume	Committed Lanes	LOS D* Service Volume	Existing Base Peak Hour Volume/LOS	Growth Rate (growth rate)	2020 Committed Traffic	2020 Background Traffic	PM Peak Hour Project Traffic Assignment	% Project Trips	% Impact	2020 Peak Hour Volume with Project Traffic		
PM TWO-WAY PEAK HOUR																
Federal Highway Pembroke Road	Atlantic Shores Blvd Hallandale Beach Blvd	Class II Class II	4LD 4LD	2920 2920	4LD 4LD	2920 2920	3230 3230	F F	0.50% 0.50%	115 115	65 65	3,345 3,410	69% 23%	95 32	3.25% 1.10%	3,440 3,442
Dixie Highway Pembroke Road	Hallandale Beach Blvd	Class II	3LO	3154	3LO	3154	922	C	0.50%	33	2	955	1%	1	0.03%	956
Pembroke Rd/Moffett Street I-95	Dixie Highway Federal Highway	Class II Class II Class II	4LD 4LD 2LU	2920 2920 1197	4LD 4LD 2LU	2920 2920 1197	3515 3515 703	F F D	0.50% 0.50% 0.50%	254 254 51	0 0 0	3,769 3,769 754	42% 54% 1%	58 75 1	1.99% 2.57% 0.08%	3,827 3,844 755
Atlantic Shores E. of Federal Hwy	E. of Federal Highway	Class II	2LU	1,197	2LU	1,197	884	D	0.50%	31	0	915	9%	12	1.00%	927

* Roadway capacity and 2013 volumes provided by Broward County MPO

(1) Growth Rates based on historical data provided by Broward County MPO; a minimum of 1.0% growth was used for all links

INTERSECTION ANALYSIS

The operating conditions for three conditions (existing, background and future total) were analyzed at the five signalized intersections during the AM peak hour and PM peak hour using Trafficware's Synchro 9.0 Software. These analyses apply methodologies outlined in the *Highway Capacity Manual, 2000 Edition*.

Tables 3, 4 and 5 summarize the existing, future background, and total level of service (LOS) at the study intersections.

As shown in these tables, certain intersection approaches will operate at level of service (LOS) F under existing, future background and future total conditions. The project traffic is anticipated to only minimally impact overall delay at these intersections and does not result in a change to the overall level of service. Furthermore, the project will be required to contribute to a transportation mitigation payment to the City per the City's transportation mitigation payment schedule. The turning movement counts are provided in *Appendix D*. Volume development worksheets are provided in *Appendix E*. Signal timing summary sheets are provided in *Appendix F*. Synchro output worksheets are included in *Appendix G*.

Additionally, project traffic impacts were identified at five additional unsignalized intersections in the vicinity of the project:

- NE 10th Street & N Federal Highway/US 1 (EB/WB right-in/right-out only)
- NE 8th Street & N Federal Highway/US 1 (EB/WB right-in/right-out only)
- NE 7th Street & N Federal Highway/US 1 (EB/WB right-in/left-in/right-out only)
- NE 6th Street & N Federal Highway/US 1 (EB/WB right-in/right-out only)
- NE 5th Street & N Federal Highway/US 1 (EB/WB right-in/left-in/right-out only)

Three of the five intersections are right-in/right-out only, meaning that the only stop sign control is on the right-out movement; all other movements operate under free-operating conditions. Therefore, the only movement at the intersection that incurs any delay is the right-out movement, and that movement only requires gaps in one direction of traffic on U.S. 1 in order to operate (as opposed to outbound through or outbound left-turn movements, which would require gaps in both directions). Similarly, the remaining two intersections also have left-in movements. This movement also only requires gaps in one direction of travel on U.S. 1 in order to operate. Therefore, in general, these intersections do not generate significant delays of their own, and the more critical intersections that determine the operations on the overall corridor are the major signalized intersections. Observations on the corridor during the peak hour confirm that the

intersections that experience the greater delay and that impact the operation of the overall corridor are the major signalized intersections, as opposed to these five minor unsignalized intersections.

Figures have been prepared to summarize the overall project traffic impacts at the affected intersections. *Figure 3* shows the overall project traffic at the five signalized intersections and the five unsignalized intersections. *Figure 4* and *Figure 5* illustrate the project traffic assignment at the five nearby unsignalized intersections to illustrate the volume of project traffic at those intersections.

Table 3
2015 Existing Peak Season Conditions

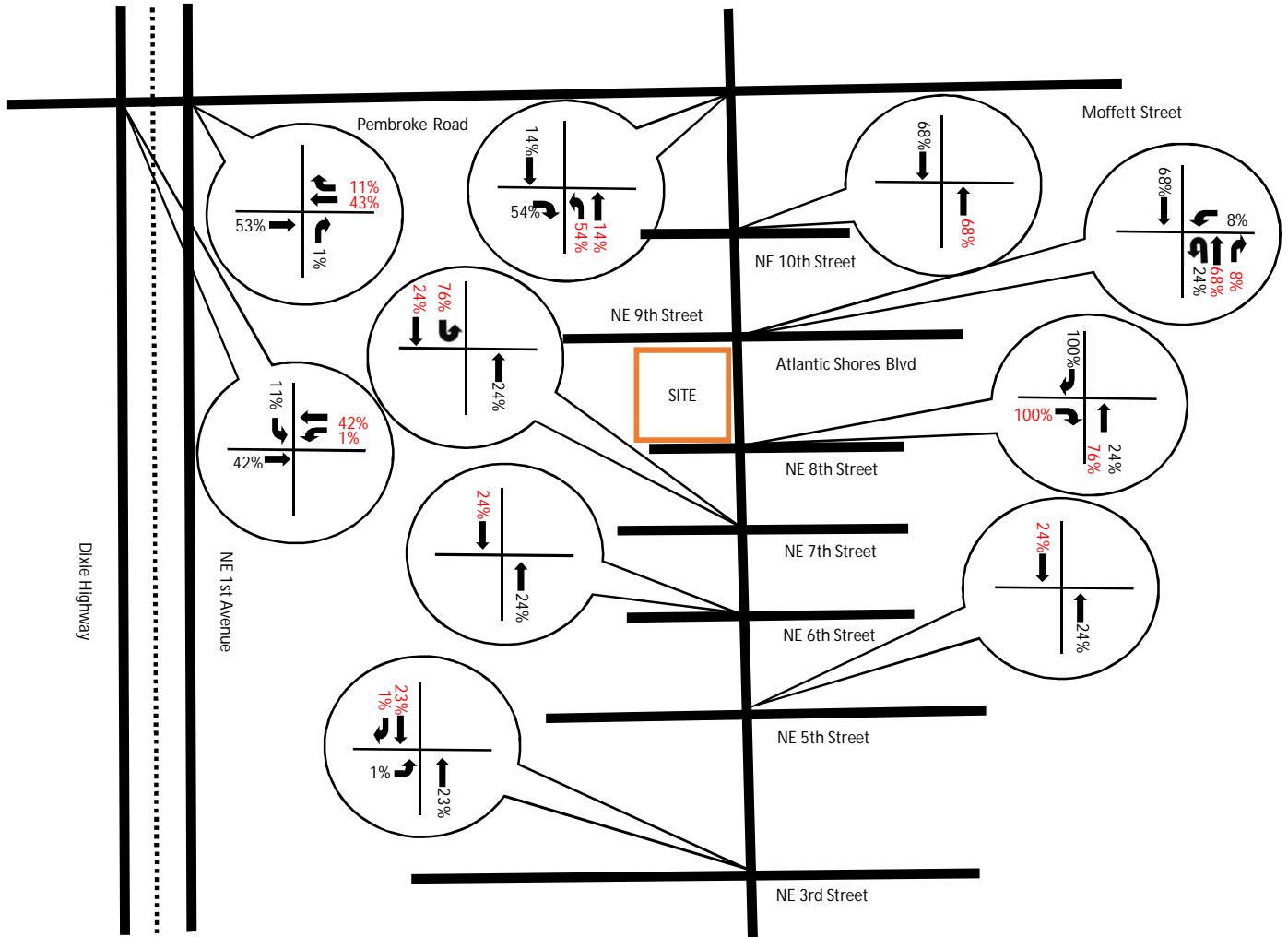
Intersection	Traffic Control	Overall Delay / LOS	Approach LOS			
			NB	SB	EB	WB
AM Peak Hour						
Federal Highway (US 1) & Pembroke Road	Signalized	61.1	E	C	C	F
1st Avenue & Pembroke	Signalized	36.1	D	E	A	A
Dixie Highway & Pembroke Road	Signalized	42.6	D	A	D	D
NE 3rd Street & Federal (US 1)	Signalized	12.1	B	A	A	E
Federal Highway (US 1) & Atlantic Shores Boulevard	Signalized	20.6	C	B	B	E
PM Peak Hour						
Federal Highway (US 1) & Pembroke Road	Signalized	62	E	C	C	F
1st Avenue & Pembroke	Signalized	34.8	C	E	A	A
Dixie Highway & Pembroke Road	Signalized	41.1	D	A	E	D
NE 3rd Street & Federal (US 1)	Signalized	20.2	C	A	A	F
Federal Highway (US 1) & Atlantic Shores Boulevard	Signalized	27.7	C	C	B	E

Table 4
2020 Future Background Conditions

Intersection	Traffic Control	Overall Delay / LOS	Approach LOS			
			NB	SB	EB	WB
AM Peak Hour						
Federal Highway (US 1) & Pembroke Road	Signalized	59.9	E	C	C	F
1st Avenue & Pembroke	Signalized	38.9	D	E	A	A
Dixie Highway & Pembroke Road	Signalized	43.5	D	A	D	D
NE 3rd Street & Federal (US 1)	Signalized	15.2	B	A	A	E
Federal Highway (US 1) & Atlantic Shores Boulevard	Signalized	21.3	C	B	B	E
PM Peak Hour						
Federal Highway (US 1) & Pembroke Road	Signalized	60.6	E	C	D	F
1st Avenue & Pembroke	Signalized	37.1	D	E	A	A
Dixie Highway & Pembroke Road	Signalized	42.7	D	A	E	D
NE 3rd Street & Federal (US 1)	Signalized	21.2	C	B	A	F
Federal Highway (US 1) & Atlantic Shores Boulevard	Signalized	30.9	C	C	B	E

Table 5
2020 Future Total Conditions

Intersection	Traffic Control	Overall Delay / LOS	Approach LOS			
			NB	SB	EB	WB
AM Peak Hour						
Federal Highway (US 1) & Pembroke Road	Signalized	59.5	E	C	C	F
1st Avenue & Pembroke	Signalized	39.1	D	E	A	A
Dixie Highway & Pembroke Road	Signalized	43.8	D	A	D	D
NE 3rd Street & Federal (US 1)	Signalized	14.9	B	A	A	E
Federal Highway (US 1) & Atlantic Shores Boulevard	Signalized	22.4	C	B	B	E
PM Peak Hour						
Federal Highway (US 1) & Pembroke Road	Signalized	61.4	E	C	D	F
1st Avenue & Pembroke	Signalized	47.8	D	E	A	A
Dixie Highway & Pembroke Road	Signalized	44.4	D	A	E	D
NE 3rd Street & Federal (US 1)	Signalized	20.8	C	B	A	F
Federal Highway (US 1) & Atlantic Shores Boulevard	Signalized	37.5	D	D	C	E

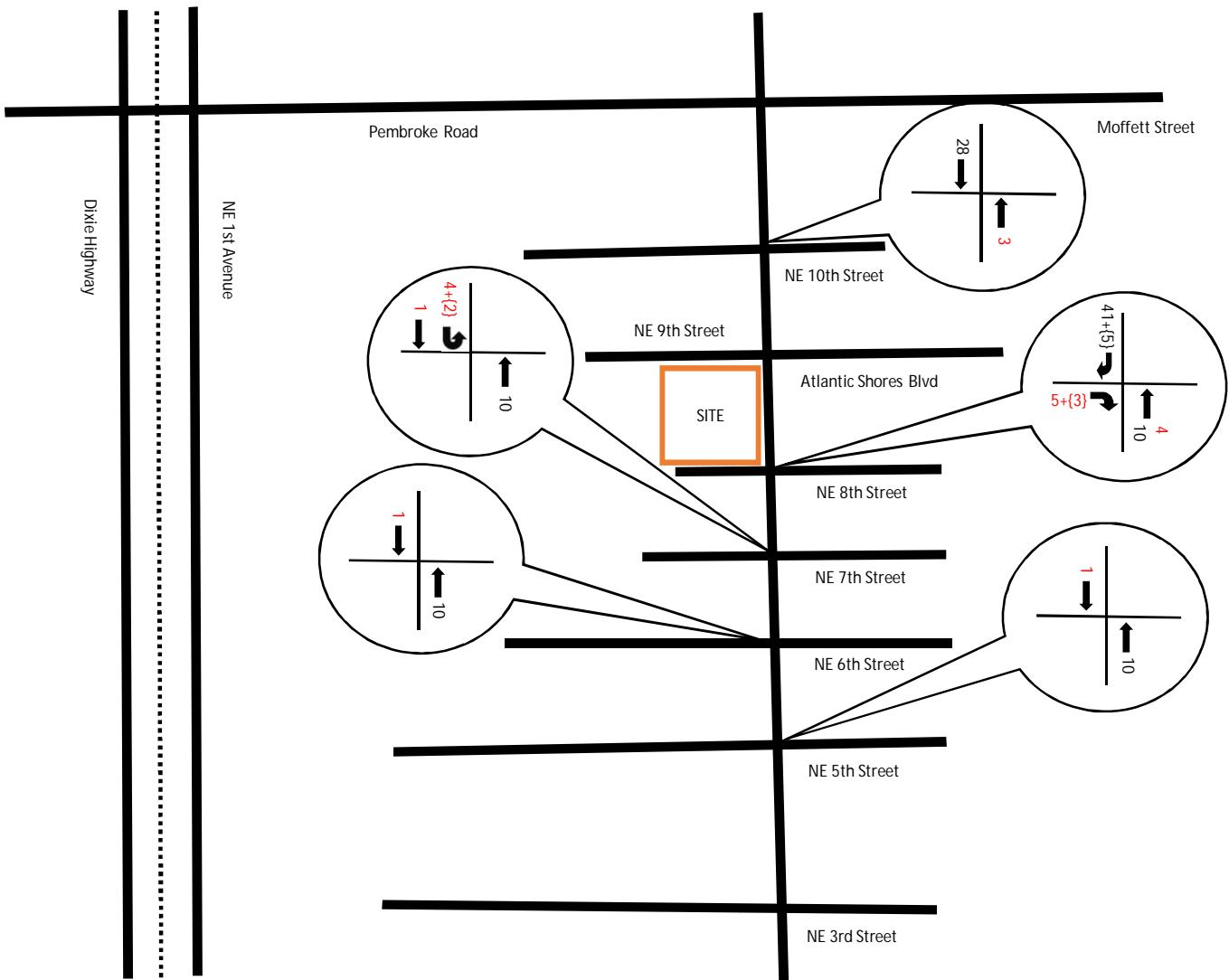


LEGEND

XX Inbound Percent Project Traffic
 XX Outbound Percent Project Traffic

Figure 3
 Percent Project Traffic
 Assignment
 KHA # 040661009

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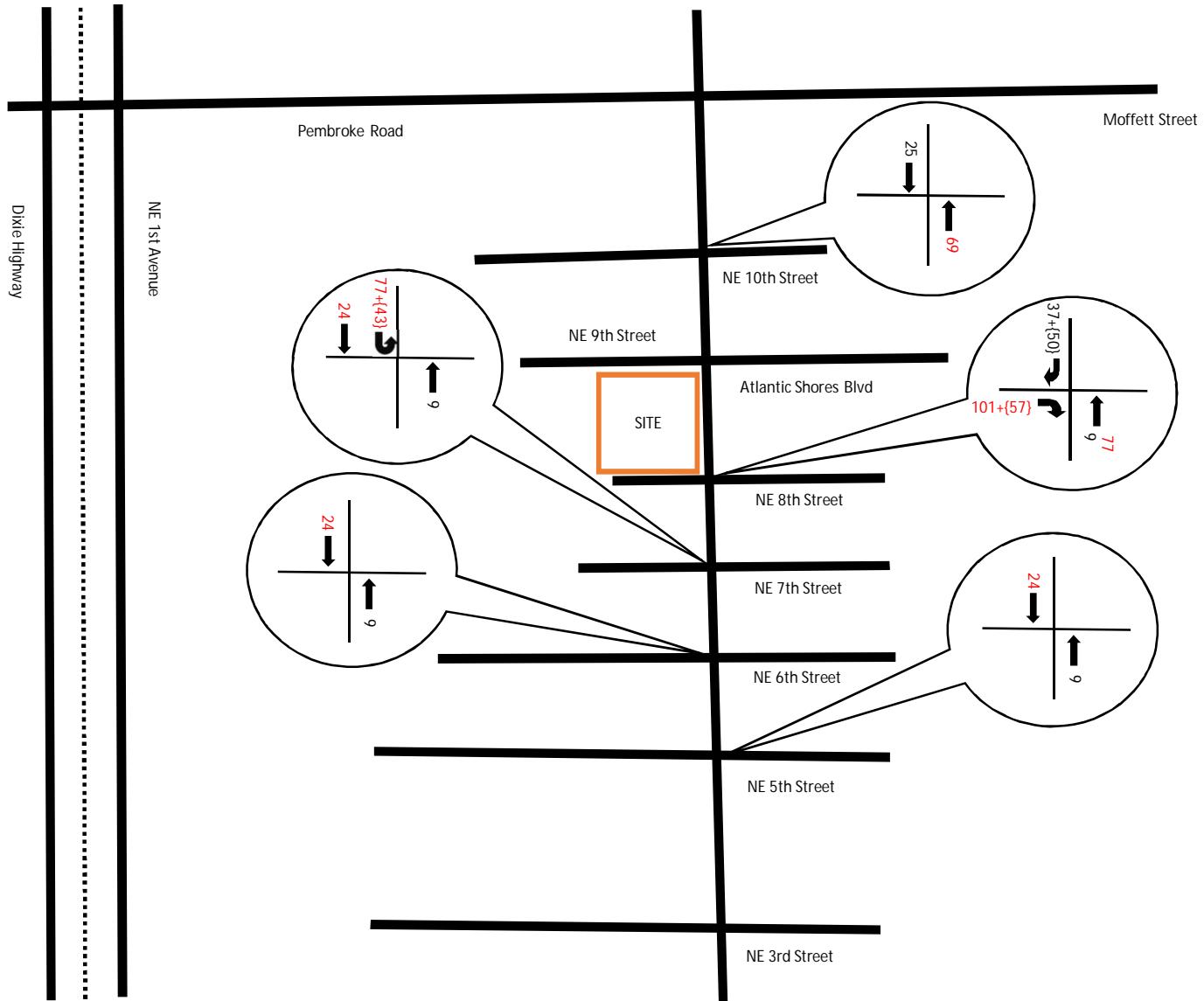


LEGEND

XX	Inbound Peak Hour Volume
XX	Outbound Peak Hour Volume
{XX}	Pass-by Traffic (Added to Driveway Volume)

Figure 4
AM Peak Hour Project
Traffic Assignment
KHA # 040661009

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LEGEND

XX	Inbound Peak Hour Volume
XX	Outbound Peak Hour Volume
{XX}	Pass-by Traffic (Added to Driveway Volume)

Figure 5
PM Peak Hour Project
Traffic Assignment
KHA # 040661009

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SITE ACCESS

Vehicular access to the site is proposed to be provided via right-in/right out movements to/from Federal Highway at NE 8th Street. Three north-south parking drive aisles intersect with NE 8th Street and provide access to the site parking area. Based upon a review of this access configuration, the Florida Department of Transportation (FDOT) District 4 required a southbound right-turn deceleration lane along the site frontage to serve NE 8th Street. This right turn lane is shown on the site plan in Appendix A.

CONCLUSION

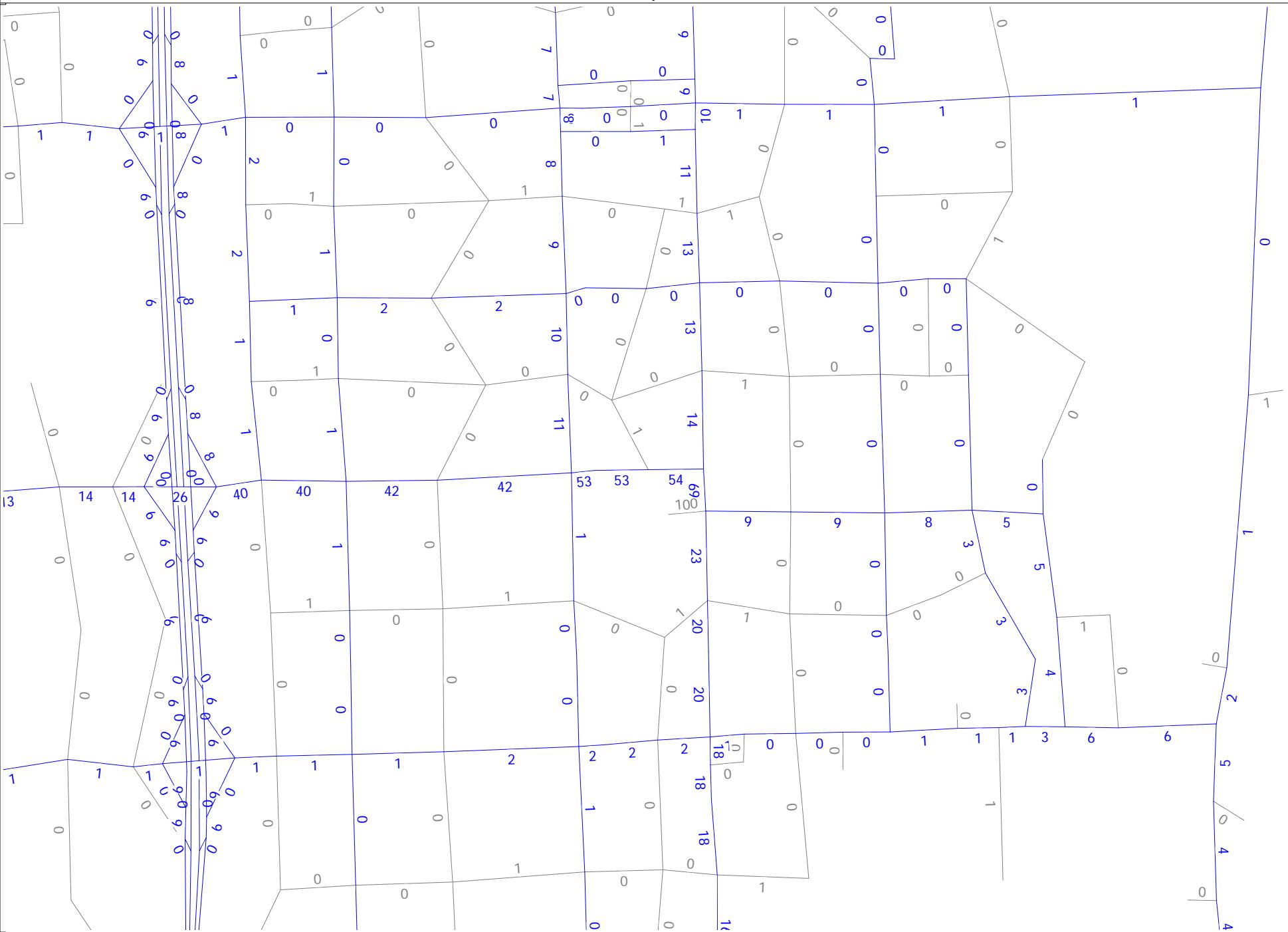
The Village at Atlantic Shores is a proposed office/commercial retail site located at the southwest quadrant of North Federal Highway (US 1) & Atlantic Shores Boulevard in Hallandale Beach, Florida. Trip generation calculations were prepared to evaluate the volume of trips anticipated to be generated during the weekday PM peak period by this site. As shown in this evaluation, the site will generate a total of 947 net new daily trips, 46 net new external AM peak hour trips and 138 net new external PM peak hour trips. Project traffic results in minimal impact to surrounding roadways and adjacent intersections and will not change level of service conditions on any of these transportation facilities. As noted, the project will construct a southbound right turn lane along the site frontage on North Federal Highway at NE 8th Street. Furthermore, the project will be required to contribute to a transportation mitigation payment to the City per the City's transportation mitigation payment schedule.

APPENDIX A: SITE PLAN

APPENDIX B: LINK DATA (BROWARD COUNTY MPO)

APPENDIX C: SERPM MODEL OUTPUT

Atlantic Village
SERPM 6.5.4
2035
Trip Distribution



**APPENDIX D: TURNING MOVEMENT COUNTS AND FDOT PEAK
SEASON FACTORS**

2014 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 8601 CEN.-W OF US1 TO SR7

MOCF: 0.97
 PSCF

WEEK	DATES	SF	
=====			
1	01/01/2014 - 01/04/2014	0.97	1.00
2	01/05/2014 - 01/11/2014	0.99	1.02
3	01/12/2014 - 01/18/2014	1.01	1.04
4	01/19/2014 - 01/25/2014	1.00	1.03
* 5	01/26/2014 - 02/01/2014	0.99	1.02
* 6	02/02/2014 - 02/08/2014	0.98	1.01
* 7	02/09/2014 - 02/15/2014	0.97	1.00
* 8	02/16/2014 - 02/22/2014	0.96	0.99
* 9	02/23/2014 - 03/01/2014	0.96	0.99
*10	03/02/2014 - 03/08/2014	0.96	0.99
*11	03/09/2014 - 03/15/2014	0.96	0.99
*12	03/16/2014 - 03/22/2014	0.96	0.99
*13	03/23/2014 - 03/29/2014	0.96	0.99
*14	03/30/2014 - 04/05/2014	0.97	1.00
*15	04/06/2014 - 04/12/2014	0.98	1.01
*16	04/13/2014 - 04/19/2014	0.98	1.01
*17	04/20/2014 - 04/26/2014	0.99	1.02
18	04/27/2014 - 05/03/2014	1.00	1.03
19	05/04/2014 - 05/10/2014	1.01	1.04
20	05/11/2014 - 05/17/2014	1.01	1.04
21	05/18/2014 - 05/24/2014	1.02	1.05
22	05/25/2014 - 05/31/2014	1.03	1.06
23	06/01/2014 - 06/07/2014	1.03	1.06
24	06/08/2014 - 06/14/2014	1.04	1.07
25	06/15/2014 - 06/21/2014	1.05	1.08
26	06/22/2014 - 06/28/2014	1.05	1.08
27	06/29/2014 - 07/05/2014	1.05	1.08
28	07/06/2014 - 07/12/2014	1.05	1.08
29	07/13/2014 - 07/19/2014	1.05	1.08
30	07/20/2014 - 07/26/2014	1.05	1.08
31	07/27/2014 - 08/02/2014	1.04	1.07
32	08/03/2014 - 08/09/2014	1.04	1.07
33	08/10/2014 - 08/16/2014	1.03	1.06
34	08/17/2014 - 08/23/2014	1.03	1.06
35	08/24/2014 - 08/30/2014	1.03	1.06
36	08/31/2014 - 09/06/2014	1.03	1.06
37	09/07/2014 - 09/13/2014	1.03	1.06
38	09/14/2014 - 09/20/2014	1.04	1.07
39	09/21/2014 - 09/27/2014	1.03	1.06
40	09/28/2014 - 10/04/2014	1.02	1.05
41	10/05/2014 - 10/11/2014	1.01	1.04
42	10/12/2014 - 10/18/2014	1.00	1.03
43	10/19/2014 - 10/25/2014	1.00	1.03
44	10/26/2014 - 11/01/2014	1.00	1.03
45	11/02/2014 - 11/08/2014	1.00	1.03
46	11/09/2014 - 11/15/2014	1.00	1.03
47	11/16/2014 - 11/22/2014	1.00	1.03
48	11/23/2014 - 11/29/2014	0.99	1.02
49	11/30/2014 - 12/06/2014	0.98	1.01
50	12/07/2014 - 12/13/2014	0.98	1.01
51	12/14/2014 - 12/20/2014	0.97	1.00
52	12/21/2014 - 12/27/2014	0.99	1.02
53	12/28/2014 - 12/31/2014	1.01	1.04

* PEAK SEASON

09-MAR-2015 16:07:53

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4_8601_PKSEASON.TXT

2014 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 8695 BROWARD I95

MOCF: 0.97
 PSCF

WEEK	DATES	SF	
=====			
1	01/01/2014 - 01/04/2014	0.97	1.00
2	01/05/2014 - 01/11/2014	0.99	1.02
3	01/12/2014 - 01/18/2014	1.00	1.03
* 4	01/19/2014 - 01/25/2014	0.99	1.02
* 5	01/26/2014 - 02/01/2014	0.98	1.01
* 6	02/02/2014 - 02/08/2014	0.98	1.01
* 7	02/09/2014 - 02/15/2014	0.97	1.00
* 8	02/16/2014 - 02/22/2014	0.96	0.99
* 9	02/23/2014 - 03/01/2014	0.96	0.99
*10	03/02/2014 - 03/08/2014	0.95	0.98
*11	03/09/2014 - 03/15/2014	0.95	0.98
*12	03/16/2014 - 03/22/2014	0.94	0.97
*13	03/23/2014 - 03/29/2014	0.95	0.98
*14	03/30/2014 - 04/05/2014	0.97	1.00
*15	04/06/2014 - 04/12/2014	0.98	1.01
*16	04/13/2014 - 04/19/2014	0.99	1.02
17	04/20/2014 - 04/26/2014	1.00	1.03
18	04/27/2014 - 05/03/2014	1.01	1.04
19	05/04/2014 - 05/10/2014	1.01	1.04
20	05/11/2014 - 05/17/2014	1.02	1.05
21	05/18/2014 - 05/24/2014	1.03	1.06
22	05/25/2014 - 05/31/2014	1.03	1.06
23	06/01/2014 - 06/07/2014	1.04	1.07
24	06/08/2014 - 06/14/2014	1.04	1.07
25	06/15/2014 - 06/21/2014	1.04	1.07
26	06/22/2014 - 06/28/2014	1.04	1.07
27	06/29/2014 - 07/05/2014	1.05	1.08
28	07/06/2014 - 07/12/2014	1.05	1.08
29	07/13/2014 - 07/19/2014	1.05	1.08
30	07/20/2014 - 07/26/2014	1.04	1.07
31	07/27/2014 - 08/02/2014	1.04	1.07
32	08/03/2014 - 08/09/2014	1.03	1.06
33	08/10/2014 - 08/16/2014	1.03	1.06
34	08/17/2014 - 08/23/2014	1.02	1.05
35	08/24/2014 - 08/30/2014	1.03	1.06
36	08/31/2014 - 09/06/2014	1.04	1.07
37	09/07/2014 - 09/13/2014	1.04	1.07
38	09/14/2014 - 09/20/2014	1.05	1.08
39	09/21/2014 - 09/27/2014	1.04	1.07
40	09/28/2014 - 10/04/2014	1.03	1.06
41	10/05/2014 - 10/11/2014	1.02	1.05
42	10/12/2014 - 10/18/2014	1.01	1.04
43	10/19/2014 - 10/25/2014	1.01	1.04
44	10/26/2014 - 11/01/2014	1.00	1.03
45	11/02/2014 - 11/08/2014	1.00	1.03
46	11/09/2014 - 11/15/2014	0.99	1.02
47	11/16/2014 - 11/22/2014	0.99	1.02
48	11/23/2014 - 11/29/2014	0.99	1.02
49	11/30/2014 - 12/06/2014	0.98	1.01
50	12/07/2014 - 12/13/2014	0.98	1.01
51	12/14/2014 - 12/20/2014	0.97	1.00
52	12/21/2014 - 12/27/2014	0.99	1.02
53	12/28/2014 - 12/31/2014	1.00	1.03

* PEAK SEASON

09-MAR-2015 16:07:53

830UPD

4_8695_PKSEASON.TXT

Traffic Survey Specialists, Inc.

85 SE 4th Avenue, Unit 109

Site Code : 00150215

Delray Beach, Florida 33483

Start Date: 10/28/15

Phone (561) 272-3255

File I.D. : PEMBDIXI

PEMBROKE ROAD & DIXIE HIGHWAY

HALLANDALE BEACH, FLORIDA

COUNTED BY: ROLANDO MARTINEZ

SIGNALIZED

ALL VEHICLES

DIXIE HIGHWAY				PEMBROKE ROAD				DIXIE HIGHWAY				PEMBROKE ROAD				
From North				From East				From South				From West				
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 10/28/15																
07:00	0	14	34	16		0	3	175	0		0	0	0		0	126 11 379
07:15	0	23	53	24		0	9	191	0		0	0	0		0	168 15 483
07:30	0	28	80	19		0	10	164	0		0	0	0		0	193 8 502
07:45	0	34	92	30		0	7	143	0		0	0	0		0	170 14 490
Hr Total	0	99	259	89	 	0	29	673	0	 	0	0	0	 	0	657 48 1854
08:00	0	30	85	35		0	21	230	0		0	0	0		0	241 7 649
08:15	0	40	110	26		0	15	218	0		0	0	0		0	239 12 660
08:30	0	24	99	28		0	9	200	0		0	0	0		0	236 19 615
08:45	0	34	103	24		0	22	191	0		0	0	0		0	179 14 567
Hr Total	0	128	397	113	 	0	67	839	0	 	0	0	0	 	0	895 52 2491
* BREAK *																
16:00	0	37	63	31		0	16	222	0		0	0	0		0	230 11 610
16:15	0	29	61	24		0	13	280	0		0	0	0		0	199 14 620
16:30	0	27	66	24		0	13	252	0		0	0	0		0	219 5 606
16:45	0	30	65	30		0	11	224	0		0	0	0		0	239 14 613
Hr Total	0	123	255	109	 	0	53	978	0	 	0	0	0	 	0	887 44 2449
17:00	0	34	74	37		0	22	269	0		0	0	0		0	181 7 624
17:15	0	40	68	29		0	10	258	0		0	0	0		0	256 6 667
17:30	0	32	64	27		0	22	258	0		0	0	0		0	223 14 640
17:45	0	26	73	38		1	10	263	0		0	0	0		0	178 11 600
Hr Total	0	132	279	131	 	1	64	1048	0	 	0	0	0	 	0	838 38 2531
TOTAL	0	482	1190	442	 	1	213	3538	0	 	0	0	0	 	0	3277 182 9325

Traffic Survey Specialists, Inc.

85 SE 4th Avenue, Unit 109

Site Code : 00150215

Delray Beach, Florida 33483

Start Date: 10/28/15

Phone (561) 272-3255

File I.D. : PEMBDIXI

PEMBROKE ROAD & DIXIE HIGHWAY

HALLANDALE BEACH, FLORIDA

COUNTED BY: ROLANDO MARTINEZ

SIGNALIZED

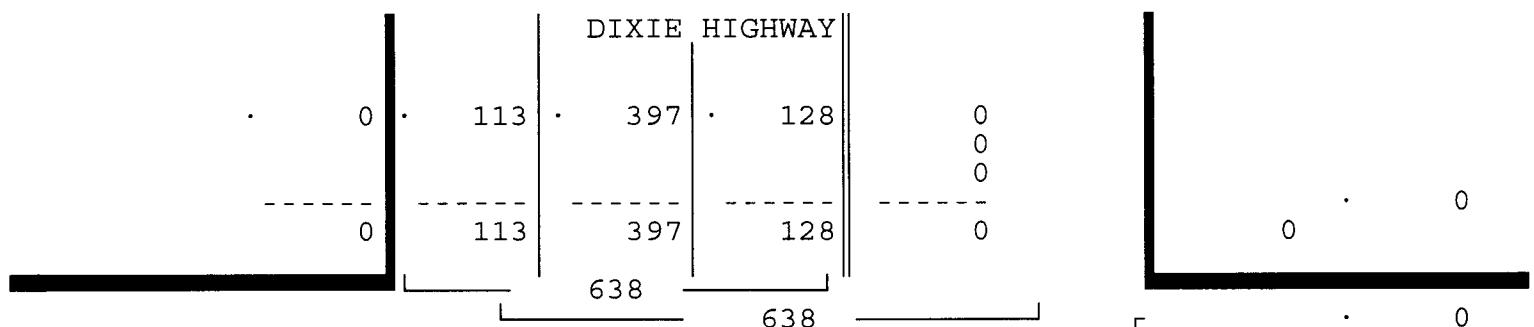
ALL VEHICLES

DIXIE HIGHWAY				PEMBROKE ROAD				DIXIE HIGHWAY				PEMBROKE ROAD				
From North				From East				From South				From West				
UTurn	Left	Thru	Right	Total												

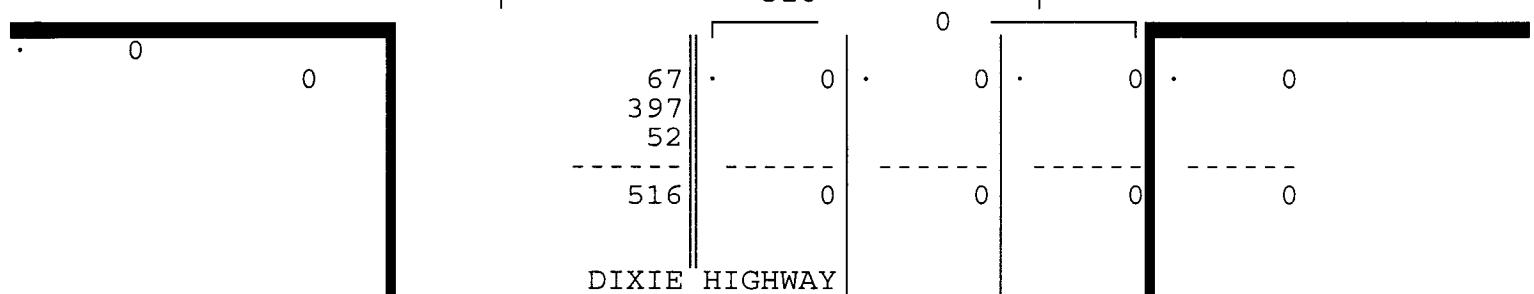
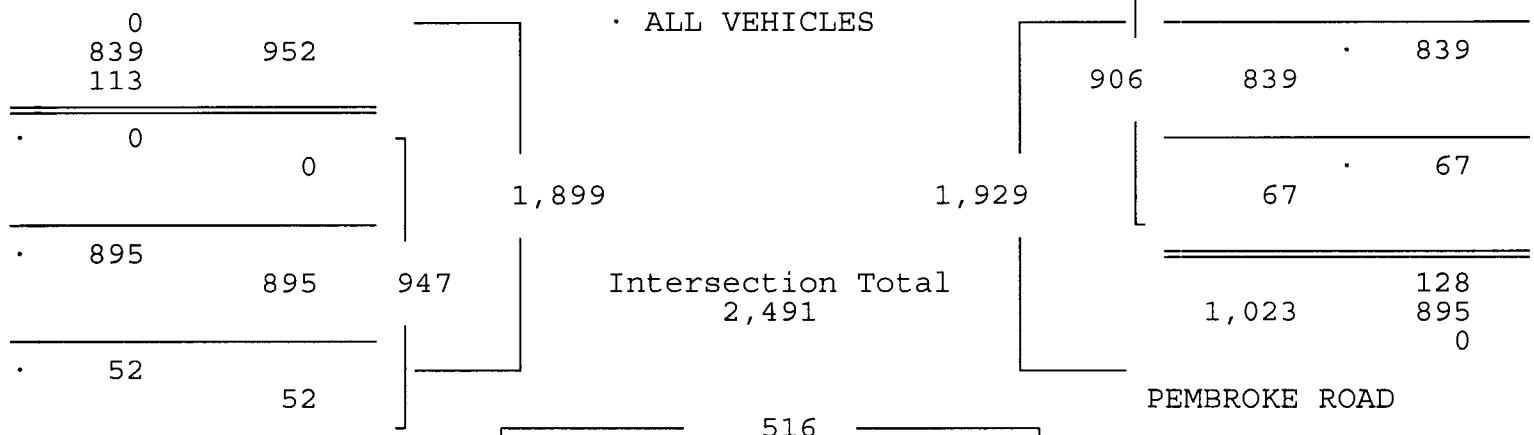
Date 10/28/15

Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 10/28/15

	08:00				08:00				08:00				08:00			
Volume	0	128	397	113	0	67	839	0	0	0	0	0	0	895	52	
Percent	0%	20%	62%	18%	0%	7%	93%	0%	0%	0%	0%	0%	0%	95%	5%	
Pk total	638				906				0					947		
Highest	08:15				08:00				07:00					08:30		
Volume	0	40	110	26	0	21	230	0	0	0	0	0	0	236	19	
Hi total	176				251				0					255		
PHF	.91				.90				.0					.93		



PEMBROKE ROAD



Traffic Survey Specialists, Inc.

85 SE 4th Avenue, Unit 109

Site Code : 00150215

Delray Beach, Florida 33483

Start Date: 10/28/15

Phone (561) 272-3255

File I.D. : PEMBDIXI

PEMBROKE ROAD & DIXIE HIGHWAY

HALLANDALE BEACH, FLORIDA

COUNTED BY: ROLANDO MARTINEZ

SIGNALIZED

ALL VEHICLES

DIXIE HIGHWAY

From North

PEMBROKE ROAD

From East

DIXIE HIGHWAY

From South

PEMBROKE ROAD

From West

UTurn Left Thru Right

UTurn Left Thru Right

UTurn Left Thru Right

UTurn Left Thru Right

Total

Date 10/28/15

Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 10/28/15

Peak start 16:45

16:45

16:45

16:45

Volume 0 136 271 123

0 65 1009 0

0 0 0 0

0 0 899 41

Percent 0% 26% 51% 23%

0% 6% 94% 0%

0% 0% 0% 0%

0% 0% 96% 4%

Pk total 530

1074

0

940

Highest 17:00

17:00

07:00

17:15

Volume 0 34 74 37

0 22 269 0

0 0 0 0

0 0 256 6

Hi total 145

291

0

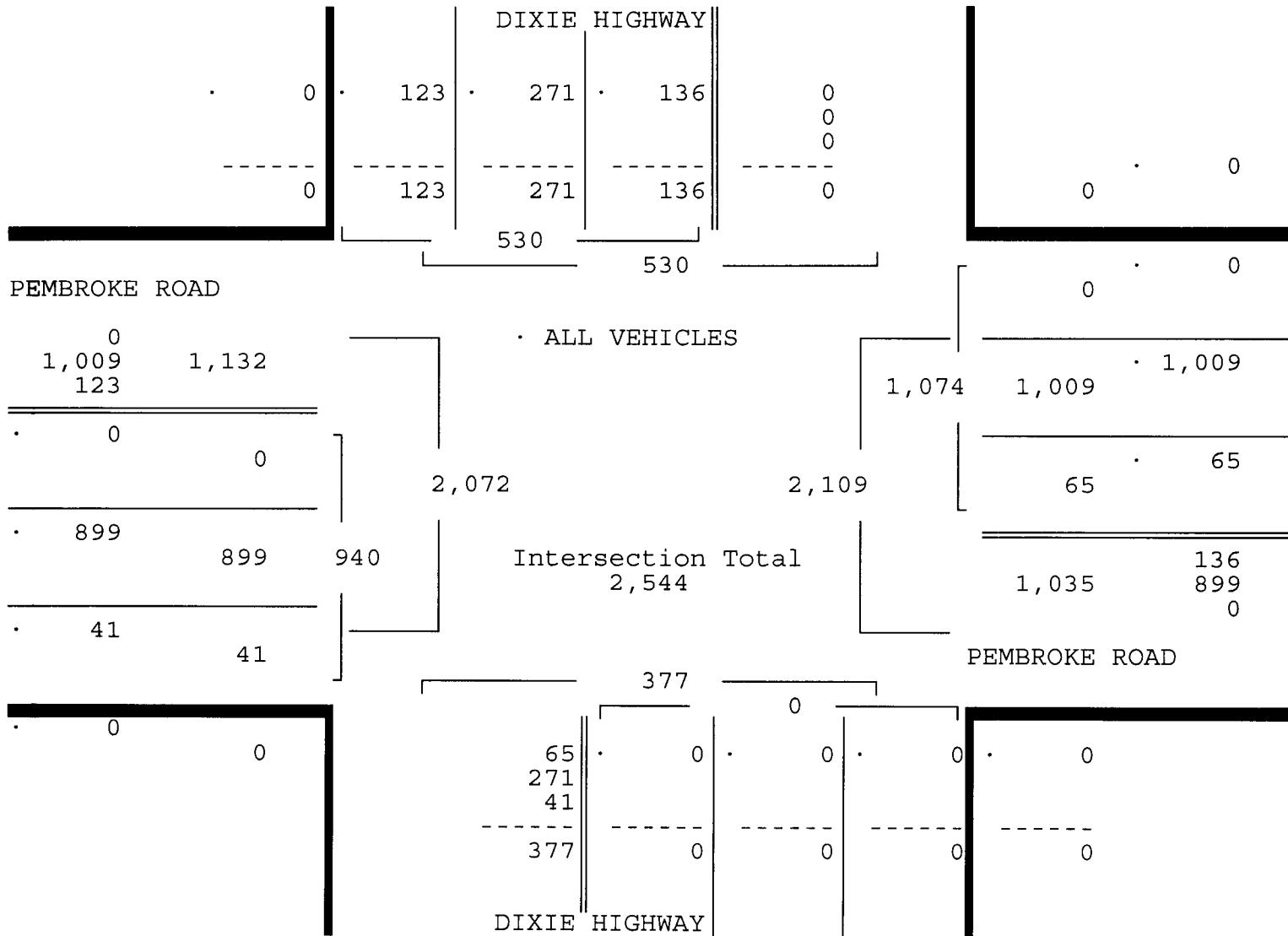
262

PHF .91

.92

.0

.90



Traffic Survey Specialists, Inc.

85 SE 4th Avenue, Unit 109

Site Code : 00150215

PEMBROKE ROAD & DIXIE HIGHWAY

Delray Beach, Florida 33483

Start Date: 10/28/15

HALLANDALE BEACH, FLORIDA

Phone (561) 272-3255

File I.D. : PEMBDIXI

COUNTED BY: ROLANDO MARTINEZ

Page : 1

SIGNALIZED

PEDESTRIANS & BIKES

DIXIE HIGHWAY				PEMBROKE ROAD				DIXIE HIGHWAY				PEMBROKE ROAD								
From North				From East				From South				From West								
Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Total
Date 10/28/15																				
07:00	0	0	0	1		0	0	0		0	1	0	6		0	1	0	0	0	9
07:15	0	0	0	1		0	0	0		0	1	0	0		0	0	0	0	0	2
07:30	0	1	0	3		0	0	0		0	1	0	1		0	0	0	0	0	6
07:45	0	1	0	0		0	0	0		0	2	0	2		0	0	0	0	0	5
Hr Total	0	2	0	5		0	0	0		0	5	0	9		0	1	0	0	0	22
08:00	0	0	0	0		0	0	0		0	0	0	0		0	0	0	0	0	0
08:15	0	1	0	4		0	0	0		0	0	0	0		0	0	0	0	0	5
08:30	0	1	0	0		0	0	0		0	1	0	1		0	1	0	0	0	4
08:45	0	0	0	5		0	0	0		0	0	0	0		0	0	0	0	0	5
Hr Total	0	2	0	9		0	0	0		0	1	0	1		0	1	0	0	0	14
* BREAK *																				
16:00	0	0	0	0		0	0	0		0	0	0	0		0	0	0	0	0	0
16:15	0	1	0	1		0	0	0		0	0	0	1		0	0	0	1	0	4
16:30	0	2	0	0		0	0	0		0	2	0	1		0	0	0	0	0	5
16:45	0	4	0	1		0	0	0		0	2	0	1		0	1	0	1	0	10
Hr Total	0	7	0	2		0	0	0		0	4	0	3		0	1	0	2	0	19
17:00	0	1	0	1		0	0	0		0	0	2	0		0	1	0	0	0	5
17:15	0	3	0	0		0	0	0		0	3	0	0		0	0	0	0	0	6
17:30	0	3	0	3		0	0	0		0	3	0	0		0	2	0	0	0	11
17:45	0	1	0	3		0	0	0		0	3	0	0		0	1	0	0	0	8
Hr Total	0	8	0	7		0	0	0		0	9	0	2		0	4	0	0	0	30
TOTAL	0	19	0	23		0	0	0		0	19	0	15		0	7	0	2		85

Traffic Survey Specialists, Inc.

85 SE 4th Avenue, Unit 109

Site Code : 00150215

PEMBROKE ROAD & NE 1ST AVENUE

Delray Beach, Florida 33483

Start Date: 10/28/15

HALLANDALE BEACH, FLORIDA

Phone (561) 272-3255

File I.D. : PEMB_1AV

COUNTED BY: SEBASTIAN SALVO

Page : 1

SIGNALIZED

ALL VEHICLES

S 21ST AVENUE				PEMBROKE ROAD				NE 1ST AVENUE				PEMBROKE ROAD				
From North				From East				From South				From West				
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 10/28/15																
07:00	0	0	0	0	0	0	169	4	0	12	12	1	0	21	125	0 344
07:15	0	0	0	0	0	0	189	4	0	11	19	1	0	33	156	0 413
07:30	0	0	0	0	0	0	160	3	0	17	22	5	0	27	214	0 448
07:45	0	0	0	0	0	0	137	3	0	16	28	5	0	20	174	0 383
Hr Total	0	0	0	0	0	0	655	14	0	56	81	12	0	101	669	0 1588
08:00	0	0	0	0	0	0	245	2	0	17	23	9	0	23	262	0 581
08:15	0	0	0	0	0	0	217	2	0	24	29	7	0	30	268	0 577
08:30	0	0	0	0	0	0	202	5	0	12	41	11	0	40	231	0 542
08:45	0	0	0	0	0	0	195	14	0	25	29	9	0	24	227	0 523
Hr Total	0	0	0	0	0	0	859	23	0	78	122	36	0	117	988	0 2223
* BREAK *																
16:00	0	0	0	0	0	0	181	1	0	57	55	9	0	35	230	0 568
16:15	0	0	0	0	0	0	253	5	0	71	65	8	0	28	193	0 623
16:30	0	0	0	0	0	0	226	3	0	55	57	12	0	23	239	0 615
16:45	0	0	0	0	0	0	193	2	0	53	63	8	0	28	241	0 588
Hr Total	0	0	0	0	0	0	853	11	0	236	240	37	0	114	903	0 2394
17:00	0	0	0	0	0	0	234	5	0	65	80	10	0	24	195	0 613
17:15	0	0	0	0	0	0	216	10	0	58	68	7	0	36	266	0 661
17:30	0	0	0	0	0	0	217	5	0	63	63	10	0	27	216	0 601
17:45	0	0	0	0	0	0	227	11	0	54	74	9	0	28	198	0 601
Hr Total	0	0	0	0	0	0	894	31	0	240	285	36	0	115	875	0 2476
TOTAL	0	0	0	0	0	0	3261	79	0	610	728	121	0	447	3435	0 8681

Traffic Survey Specialists, Inc.

85 SE 4th Avenue, Unit 109

Delray Beach, Florida 33483

Phone (561) 272-3255

Site Code : 00150215

Start Date: 10/28/15

File I.D. : PEMB_1AV

Page : 2

PEMBROKE ROAD & NE 1ST AVENUE
 HALLANDALE BEACH, FLORIDA
 COUNTED BY: SEBASTIAN SALVO
 SIGNALIZED

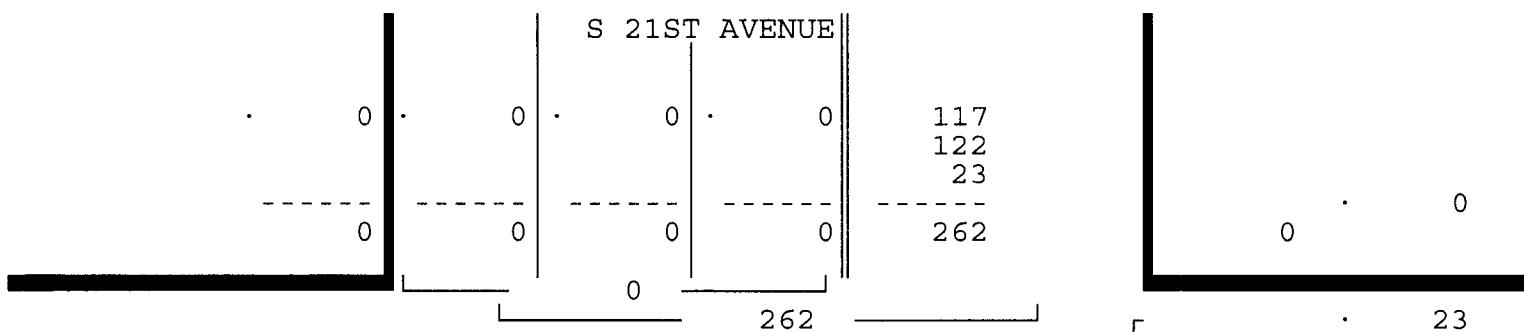
ALL VEHICLES

S 21ST AVENUE				PEMBROKE ROAD				NE 1ST AVENUE				PEMBROKE ROAD				
From North				From East				From South				From West				
UTurn	Left	Thru	Right	Total												

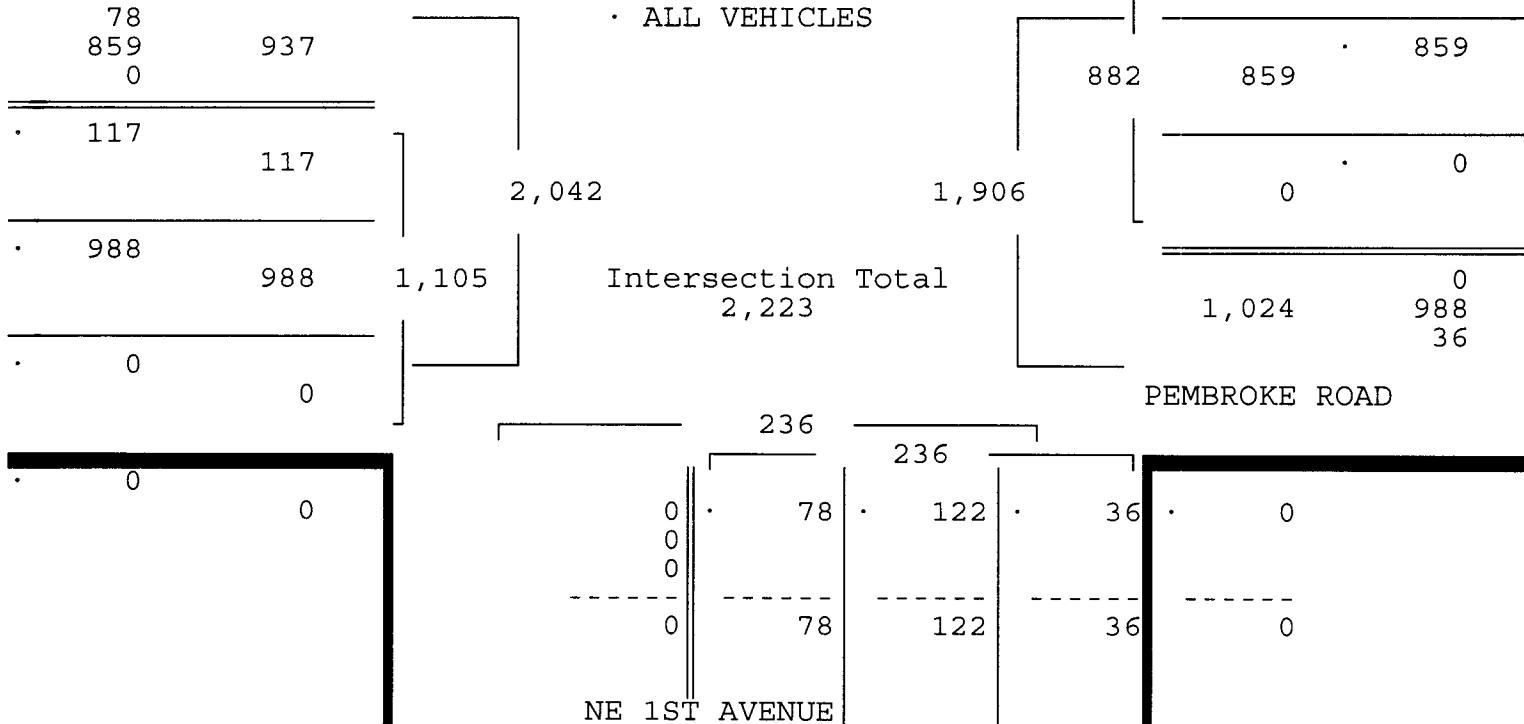
Date 10/28/15

Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 10/28/15

	08:00				08:00				08:00				08:00			
Volume	0 0 0 0				0 0 859 23				0 78 122 36				0 117 988 0			
Percent	0% 0% 0% 0%				0% 0% 97% 3%				0% 33% 52% 15%				0% 11% 89% 0%			
Pk total	0				882				236				1105			
Highest	07:00				08:00				08:30				08:15			
Volume	0 0 0 0				0 245 2				0 12 41 11				0 30 268 0			
Hi total	0				247				64				298			
PHF	.89								.92				.93			



PEMBROKE ROAD



Traffic Survey Specialists, Inc.

PEMBROKE ROAD & NE 1ST AVENUE
HALLANDALE BEACH, FLORIDA
COUNTED BY: SEBASTIAN SALVO
SIGNALIZED

85 SE 4th Avenue, Unit 109
Delray Beach, Florida 33483
Phone (561) 272-3255

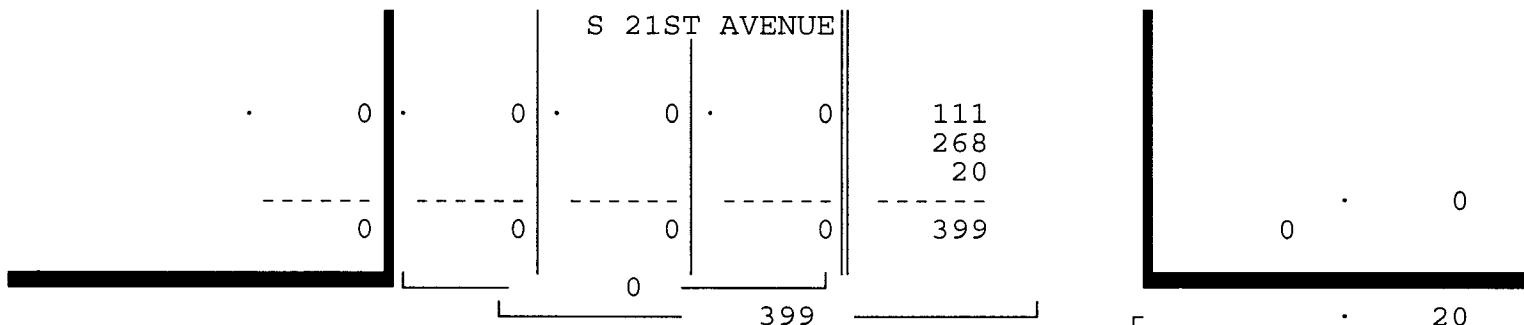
Site Code : 00150215
Start Date: 10/28/15
File I.D. : PEMB_1AV
Page : 3

ALL VEHICLES

S 21ST AVENUE				PEMBROKE ROAD				NE 1ST AVENUE				PEMBROKE ROAD				
From North				From East				From South				From West				
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 10/28/15																

Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 10/28/15

	16:30				16:30				16:30				16:30			
Volume	0	0	0	0	0	0	869	20	0	231	268	37	0	111	941	0
Percent	0%	0%	0%	0%	0%	0%	98%	2%	0%	43%	50%	7%	0%	11%	89%	0%
Pk total	0				889				536				1052			
Highest	07:00				17:00				17:00				17:15			
Volume	0	0	0	0	0	0	234	5	0	65	80	10	0	36	266	0
Hi total	0				239				155				302			
PHF	.0				.93				.86				.87			



PEMBROKE ROAD

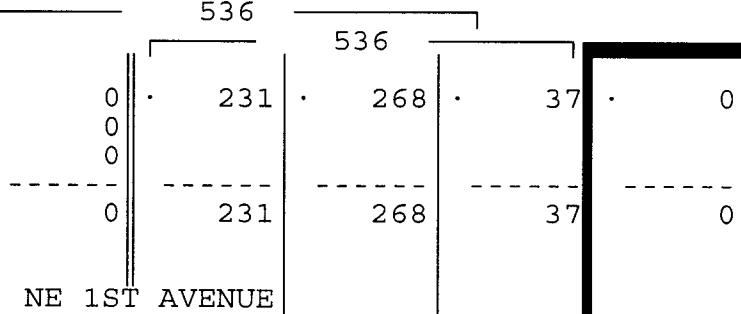
231	869	1,100	
869	0		
0			
111	111		
111			
941	941	1,052	
941			
0	0		

ALL VEHICLES

Intersection Total
2,477

889	869	
869	0	
0		
978	941	
941	37	

PEMBROKE ROAD



Traffic Survey Specialists, Inc.

85 SE 4th Avenue, Unit 109

Site Code : 00150215

PEMBROKE ROAD & NE 1ST AVENUE

Delray Beach, Florida 33483

Start Date: 10/28/15

HALLANDALE BEACH, FLORIDA

Phone (561) 272-3255

File I.D. : PEMB_1AV

COUNTED BY: SEBASTIAN SALVO

Page : 1

SIGNALIZED

PEDESTRIANS & BIKES

S 21ST AVENUE				PEMBROKE ROAD				NE 1ST AVENUE				PEMBROKE ROAD				
From North				From East				From South				From West				
Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Total
Date 10/28/15																
07:00	0	0	0	1	0	0	0	1	0	1	0	4	0	0	0	7
07:15	0	0	0	1	0	0	0	0	0	1	0	4	0	0	0	6
07:30	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3
07:45	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
Hr Total	0	3	0	2	0	2	0	1	0	2	0	8	0	0	0	18
08:00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
08:15	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	4
08:30	0	0	0	0	0	0	0	1	0	1	0	3	0	0	0	5
08:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Hr Total	0	1	0	4	0	0	0	1	0	2	0	4	0	0	0	12
* BREAK *																
16:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16:15	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	4
16:30	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
16:45	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	3
Hr Total	0	5	0	3	0	0	0	0	0	0	0	2	0	0	0	10
17:00	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	3
17:15	0	2	0	0	0	0	0	0	0	5	0	0	0	0	0	7
17:30	0	1	0	3	0	0	0	2	0	3	0	3	0	0	0	12
17:45	0	2	0	4	0	1	0	0	0	2	0	0	0	0	0	9
Hr Total	0	5	0	7	0	2	0	2	0	10	0	5	0	0	0	31

TOTAL 0 14 0 16 | 0 4 0 4 | 0 14 0 19 | 0 0 0 0 | 0 0 0 0 | 71

Traffic Survey Specialists, Inc.

624 Gardenia Terrace

Delray Beach, Florida 33444

Phone (561) 272-3255

Site Code : 00150087

Start Date: 04/23/15

File I.D. : PEMBRUS1

Page : 1

ALL VEHICLES

US 1				MOFFETT STREET				US 1				PEMBROKE ROAD				
From North				From East				From South				From West				
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 04/23/15																
07:00	1	5	62	30		0	2	60	2		0	53	89	1		417
07:15	2	1	129	26		0	1	53	5		0	70	150	1		563
07:30	2	5	147	23		0	5	71	2		0	68	125	1		619
07:45	4	10	194	26		0	7	61	2		0	65	151	0		702
Hr Total	9	21	532	105		0	15	245	11		0	256	515	3		2301
08:00	0	10	199	19		0	5	51	3		0	64	171	0		717
08:15	4	7	196	34		0	6	57	2		0	63	190	1		747
08:30	0	2	232	35		0	5	64	2		0	84	196	3		784
08:45	6	6	200	25		0	4	74	2		0	69	189	3		828
Hr Total	10	25	827	113		0	20	246	9		0	280	746	7		3076
* BREAK *																
16:00	5	15	172	27		0	1	63	3		0	91	240	4		787
16:15	2	16	180	24		0	1	60	5		0	107	238	2		826
16:30	2	9	152	30		0	6	50	5		0	95	227	1		760
16:45	5	6	199	18		0	3	43	2		0	84	273	1		827
Hr Total	14	46	703	99		0	11	216	15		0	377	978	8		3200
17:00	4	9	213	21		0	0	48	6		0	115	269	1		903
17:15	2	21	194	23		0	2	43	9		0	98	288	0		910
17:30	3	13	229	25		0	2	58	7		0	98	330	3		946
17:45	1	10	207	39		0	2	52	8		0	104	244	6		912
Hr Total	10	53	843	108		0	6	201	30		0	415	1131	10		3671
TOTAL	43	145	2905	425		0	52	908	65		0	1328	3370	28		12248

Traffic Survey Specialists, Inc.

624 Gardenia Terrace

Delray Beach, Florida 33444

Phone (561) 272-3255

Site Code : 00150087

Start Date: 04/23/15

File I.D. : PEMBRUS1

Page : 2

ALL VEHICLES

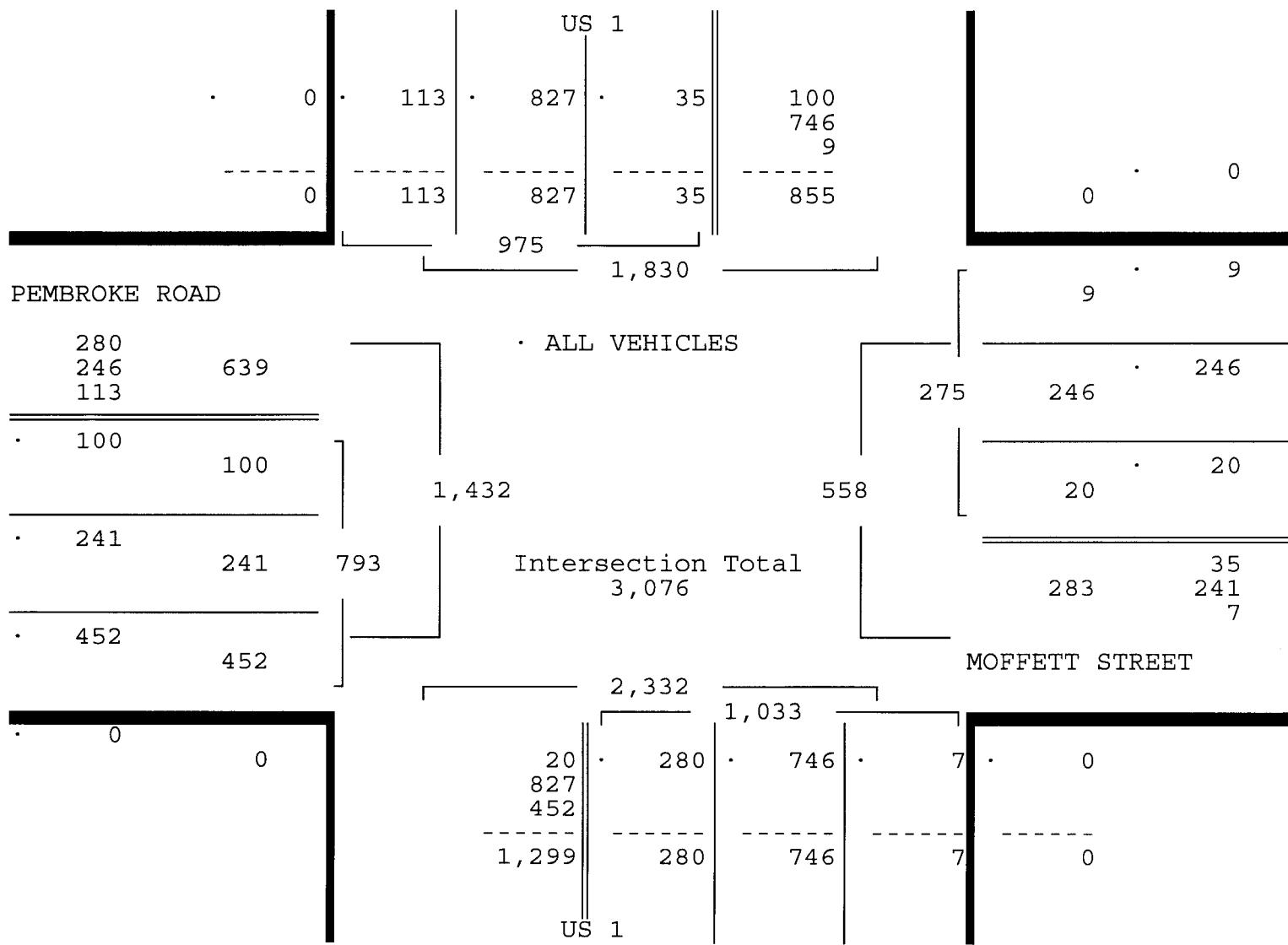
PEMBROKE ROAD & US 1
 HALLANDALE BEACH, FLORIDA
 COUNTED BY: A. LOPEZ & M. CRUZ
 SIGNALIZED

US 1				MOFFETT STREET				US 1				PEMBROKE ROAD				
From North				From East				From South				From West				
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total

Date 04/23/15

Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 04/23/15

	08:00				08:00				08:00				08:00			
Volume	10 25 827 113				0 20 246 9				0 280 746 7				0 100 241 452			
Percent	1% 3% 85% 12%				0% 7% 89% 3%				0% 27% 72% 1%				0% 13% 30% 57%			
Pk total	975				275				1033				793			
Highest	08:30				08:45				08:30				08:45			
Volume	0 2 232 35				0 4 74 2				0 84 196 3				0 35 84 131			
Hi total	269				80				283				250			
PHF	.91				.86				.91				.79			



Traffic Survey Specialists, Inc.

624 Gardenia Terrace

Delray Beach, Florida 33444

Site Code : 00150087

Start Date: 04/23/15

PEMBROKE ROAD & US 1

HALLANDALE BEACH, FLORIDA

COUNTED BY: A. LOPEZ & M. CRUZ

SIGNALIZED

Phone (561) 272-3255

File I.D. : PEMBRUS1

Page : 3

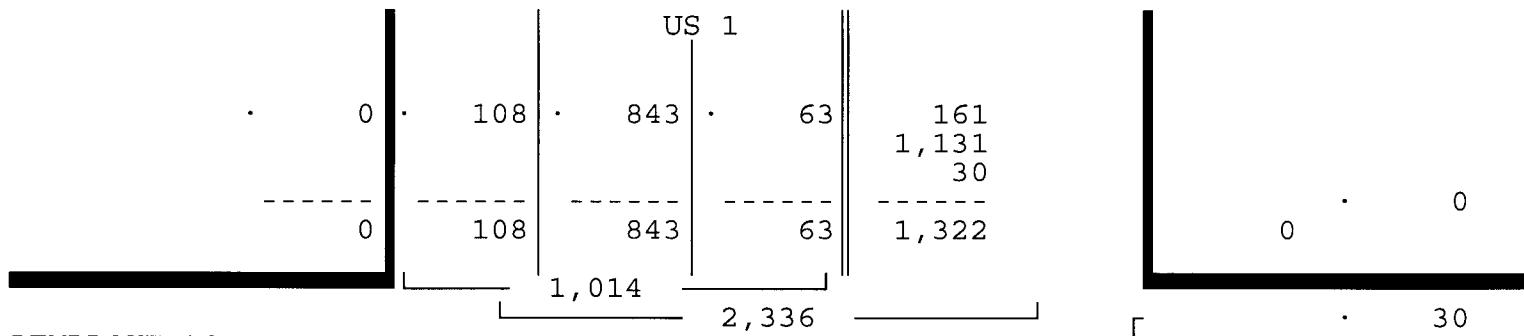
ALL VEHICLES

US 1				MOFFETT STREET				US 1				PEMBROKE ROAD			
From North				From East				From South				From West			
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right

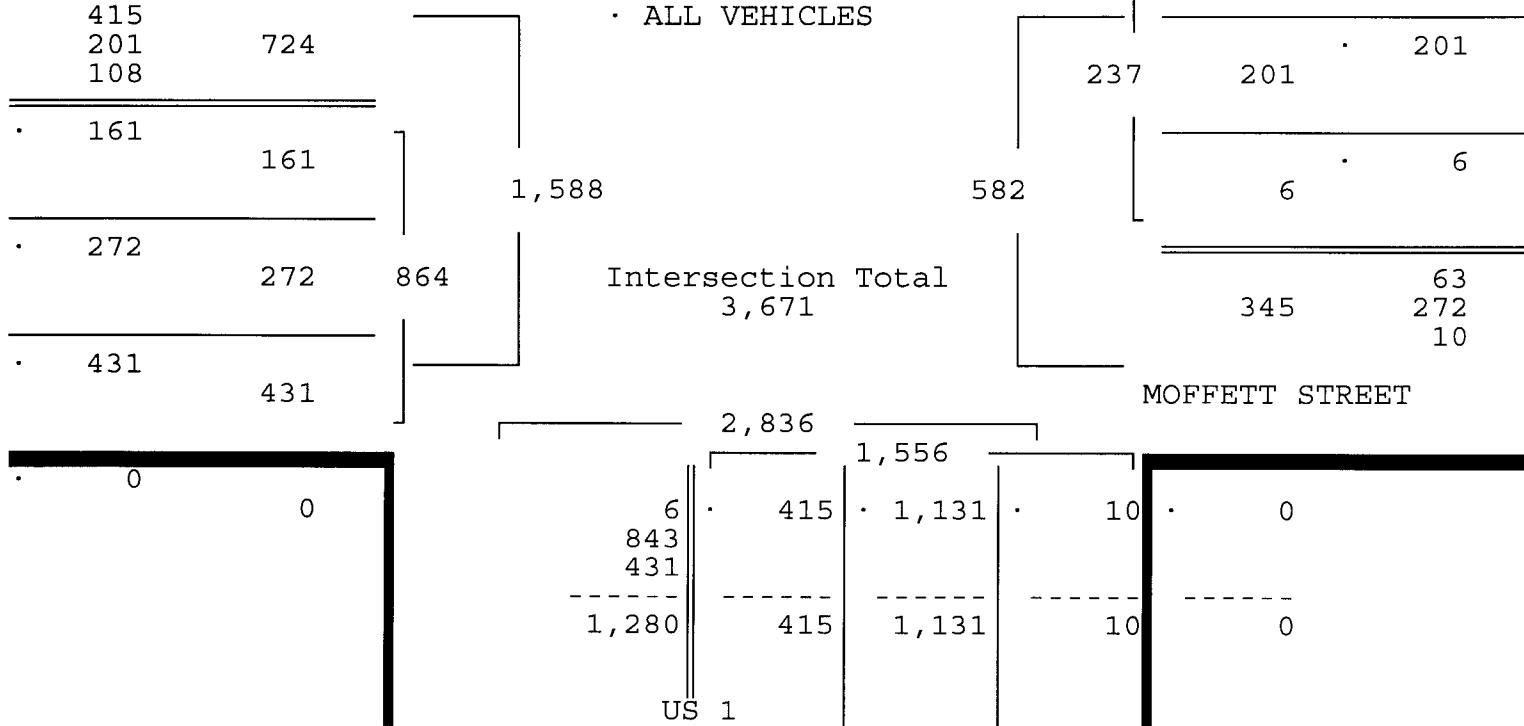
Date 04/23/15 -----

Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 04/23/15

	Peak start 17:00				17:00				17:00				17:00			
Volume	10 53 843 108				0 6 201 30				0 415 1131 10				0 161 272 431			
Percent	1% 5% 83% 11%				0% 3% 85% 13%				0% 27% 73% 1%				0% 19% 31% 50%			
Pk total	1014				237				1556				864			
Highest	17:30				17:30				17:30				17:45			
Volume	3 13 229 25				0 2 58 7				0 98 330 3				0 41 82 116			
Hi total	270				67				431				239			
PHF	.94				.88				.90				.90			



PEMBROKE ROAD



Traffic Survey Specialists, Inc.

PEMBROKE ROAD & US 1
HALLANDALE BEACH, FLORIDA
COUNTED BY: A. LOPEZ & M. CRUZ
SIGNALIZED

624 Gardenia Terrace
Delray Beach, Florida 33444
Phone (561) 272-3255

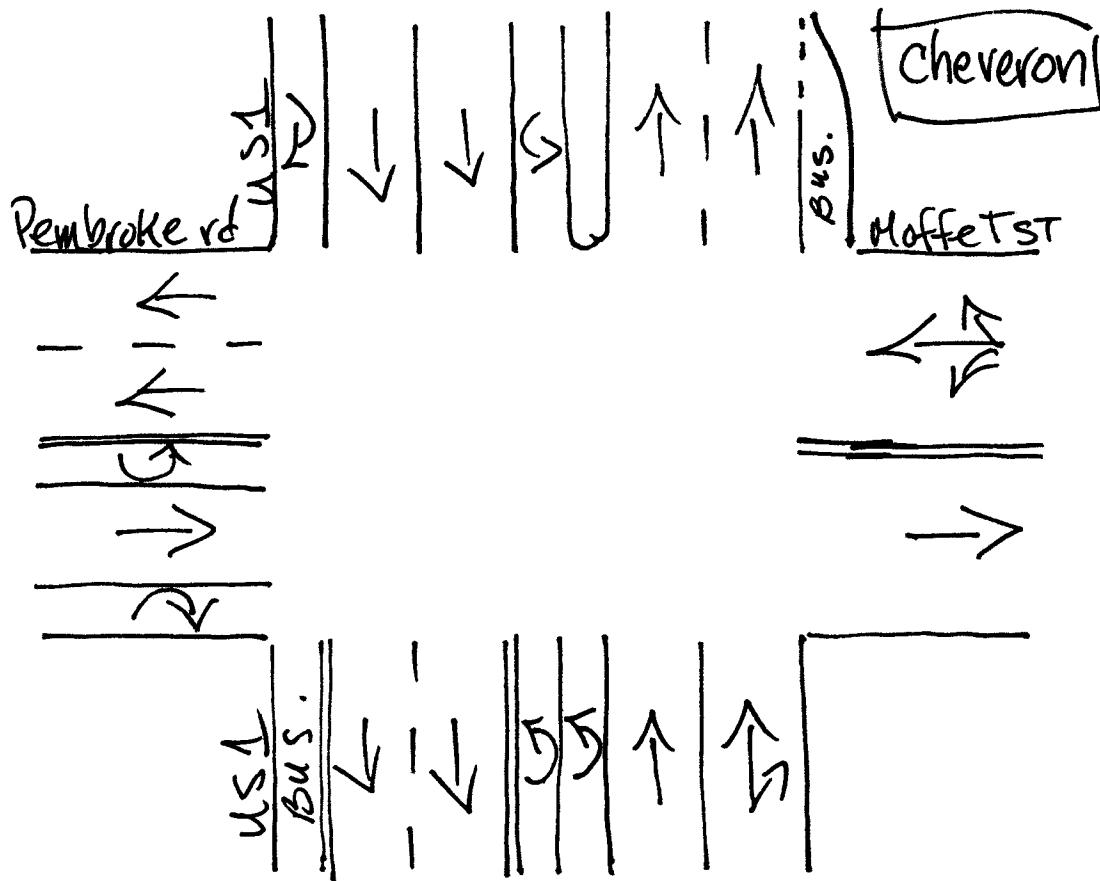
Site Code : 00150087
Start Date: 04/23/15
File I.D. : PEMBRUS1
Page : 1

PEDESTRIANS & BIKES

US 1				MOFFETT STREET				US 1				PEMBROKE ROAD							
From North				From East				From South				From West							
Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Total			
Date 04/23/15																			
07:00	0	0	0	3		0	0	0	0	0	0	1		0	0	7	11		
07:15	0	0	0	3		0	0	0	0	0	0	0		0	2	0	2	7	
07:30	0	2	0	2		0	0	0	0	1	0	0		0	3	0	5	13	
<u>07:45</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u> </u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u> </u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>3</u>	<u>9</u>	
Hr Total	0	3	0	9		0	1	0	0	1	0	3		0	6	0	17	40	
08:00	0	0	0	1		0	0	0	1	0	0	1		0	3	0	0	6	
08:15	0	0	0	0		0	0	1		0	1	1		0	2	0	3	8	
08:30	0	0	0	5		0	0	5		0	1	3		0	3	0	1	18	
<u>08:45</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>2</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u> </u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>3</u>	<u>8</u>	
Hr Total	0	0	0	8		0	0	0	9		0	2		0	5		0	9	40
* BREAK *																			
16:00	0	0	0	2		0	2	0	0	0	0	0		0	0	0	4	8	
16:15	0	0	0	3		0	0	0	1		0	0		0	0	0	2	7	
16:30	0	1	0	3		0	1	0	0		0	0		0	0	0	0	5	
<u>16:45</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u> </u>	<u>0</u>	<u>1</u>	<u>0</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>7</u>	
Hr Total	0	1	0	10		0	3	0	4		0	1	0		0	0	0	7	27
17:00	0	2	0	0		0	0	0	2		0	0		0	2	0	5	14	
17:15	0	0	0	4		0	1	0	1		0	2		0	0	0	2	17	
17:30	0	0	0	4		0	1	0	5		0	1		0	0	0	2	17	
<u>17:45</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u> </u>	<u>0</u>	<u>1</u>	<u>0</u>	<u> </u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>2</u>	<u>4</u>
Hr Total	0	2	0	8		0	2	0	8		0	4		0	14		0	3	52

TOTAL 0 6 0 35 | 0 6 0 21 | 0 8 0 23 | 0 18 0 42 | 159

↑
North



Hallandale Beach, Florida

April 23, 2015
drawn by: Luis Palomino
signalized

Traffic Survey Specialists, Inc.

ATLANTIC SHORES BOULEVARD & US 1
 HALLANDALE BEACH, FLORIDA
 COUNTED BY: ISIDRO GONZALEZ
 SIGNALIZED

624 Gardenia Terrace
 Delray Beach, Florida 33444
 Phone (561) 272-3255

Site Code : 00150087
 Start Date: 04/23/15
 File I.D. : ATLASUS1
 Page : 1

ALL VEHICLES

US 1				ATLANTIC SHORES BLVD				US 1				CASINO DRIVEWAY					
From North				From East				From South				From West					
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total	
Date 04/23/15																	
07:00	0	12	112	0	0	21	0	45	0	1	105	12	0	0	1	309	
07:15	0	11	189	0	0	18	0	51	0	0	164	16	0	0	1	450	
07:30	0	28	213	1	0	40	5	57	0	3	159	15	0	0	2	524	
<u>07:45</u>	<u>1</u>	<u>20</u>	<u>270</u>	<u>0</u>	<u>0</u>	<u>41</u>	<u>1</u>	<u>46</u>	<u>0</u>	<u>2</u>	<u>166</u>	<u>17</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>567</u>	
Hr Total	1	71	784	1	0	120	6	199	0	6	594	60	0	0	6	1850	
08:00	0	24	287	0	0	41	3	51	0	0	190	19	0	0	2	618	
08:15	0	29	283	1	0	29	2	61	0	2	205	22	0	1	0	636	
08:30	0	29	290	2	0	32	3	53	1	4	213	9	0	0	1	638	
<u>08:45</u>	<u>0</u>	<u>38</u>	<u>278</u>	<u>3</u>	<u>0</u>	<u>28</u>	<u>2</u>	<u>67</u>	<u>1</u>	<u>4</u>	<u>209</u>	<u>28</u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>663</u>	
Hr Total	0	120	1138	6	0	130	10	232	1	10	817	78	0	1	9	2555	
* BREAK *																	
16:00	0	33	233	2	0	29	8	68	0	9	266	19	0	1	13	683	
16:15	0	26	220	2	0	29	4	60	0	2	289	22	0	1	8	666	
16:30	0	47	194	2	0	23	4	74	1	11	274	19	0	1	7	659	
<u>16:45</u>	<u>0</u>	<u>50</u>	<u>229</u>	<u>3</u>	<u>1</u>	<u>32</u>	<u>4</u>	<u>46</u>	<u>0</u>	<u>7</u>	<u>280</u>	<u>20</u>	<u>0</u>	<u>1</u>	<u>11</u>	<u>688</u>	
Hr Total	0	156	876	9	1	113	20	248	1	29	1109	80	0	4	39	2696	
17:00	0	44	263	5	0	32	7	64	0	5	325	30	0	3	13	801	
17:15	0	39	260	2	0	26	8	67	0	11	328	28	0	1	16	796	
17:30	0	34	260	6	0	28	7	61	1	9	352	36	0	1	15	813	
<u>17:45</u>	<u>0</u>	<u>49</u>	<u>255</u>	<u>3</u>	<u>0</u>	<u>31</u>	<u>4</u>	<u>47</u>	<u>0</u>	<u>4</u>	<u>315</u>	<u>26</u>	<u>0</u>	<u>0</u>	<u>13</u>	<u>751</u>	
Hr Total	0	166	1038	16	0	117	26	239	1	29	1320	120	0	5	57	3161	
TOTAL	1	513	3836	32	1	480	62	918	4	74	3840	338	0	10	42	111	10262

Traffic Survey Specialists, Inc.

ATLANTIC SHORES BOULEVARD & US 1
 HALLANDALE BEACH, FLORIDA
 COUNTED BY: ISIDRO GONZALEZ
 SIGNALIZED

624 Gardenia Terrace
 Delray Beach, Florida 33444
 Phone (561) 272-3255

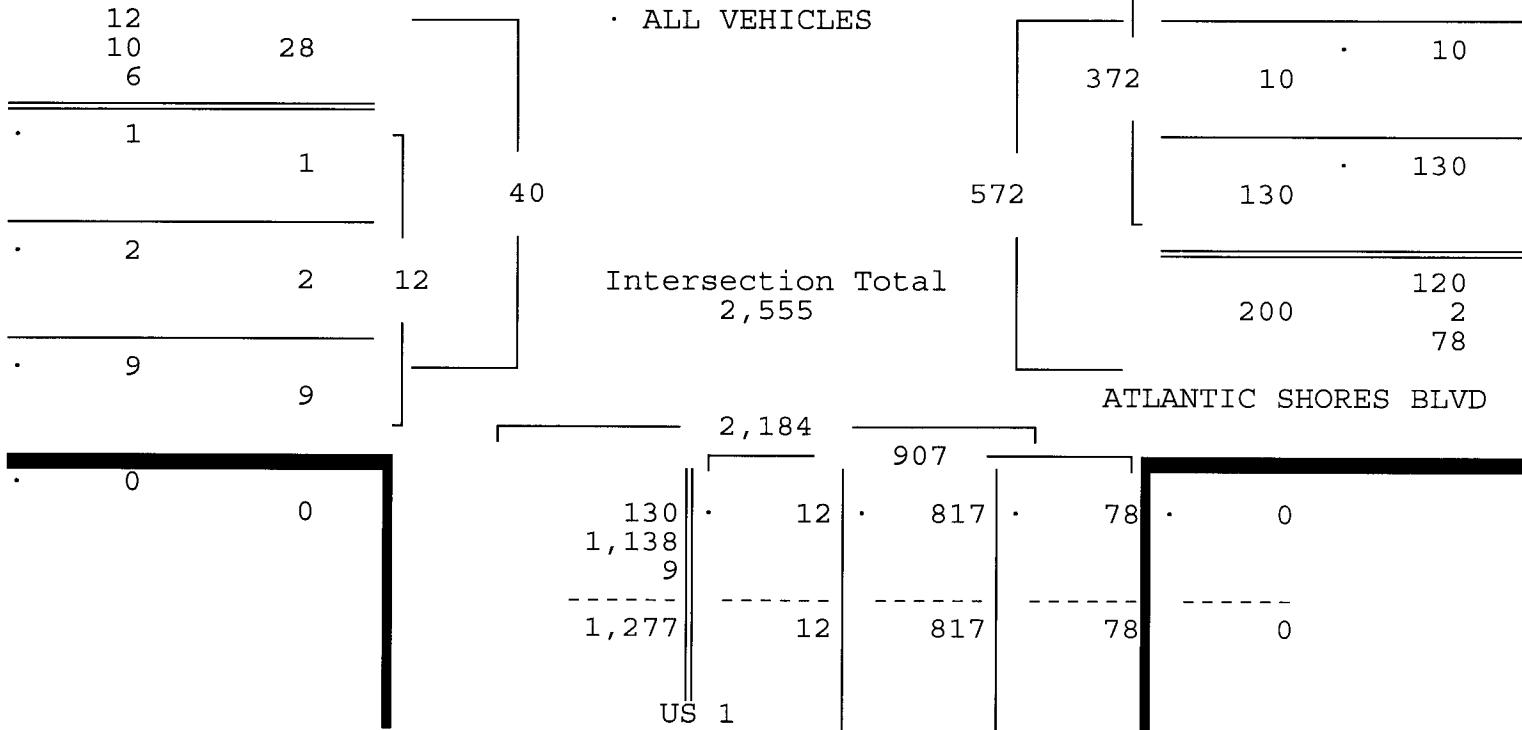
Site Code : 00150087
 Start Date: 04/23/15
 File I.D. : ATLASUS1
 Page : 2

ALL VEHICLES

US 1				ATLANTIC SHORES BLVD				US 1				CASINO DRIVEWAY				
From North				From East				From South				From West				
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	
Date	04/23/15														Total	
Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 04/23/15																
Peak start	08:00				08:00				08:00				08:00			
Volume	0	120	1138	6	0	130	10	232	2	10	817	78	0	1	2	9
Percent	0%	9%	90%	0%	0%	35%	3%	62%	0%	1%	90%	9%	0%	8%	17%	75%
Pk total	1264				372				907				12			
Highest	08:30				08:45				08:45				08:45			
Volume	0	29	290	2	0	28	2	67	1	4	209	28	0	0	0	5
Hi total	321				97				242				5			
PHF	.98				.96				.94				.60			



CASINO DRIVEWAY



Traffic Survey Specialists, Inc.

ATLANTIC SHORES BOULEVARD & US 1
 HALLANDALE BEACH, FLORIDA
 COUNTED BY: ISIDRO GONZALEZ
 SIGNALIZED

624 Gardenia Terrace
 Delray Beach, Florida 33444
 Phone (561) 272-3255

Site Code : 00150087
 Start Date: 04/23/15
 File I.D. : ATLASUS1
 Page : 3

ALL VEHICLES

US 1		ATLANTIC SHORES BLVD				US 1				CASINO DRIVEWAY						
From North		From East				From South				From West						
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total

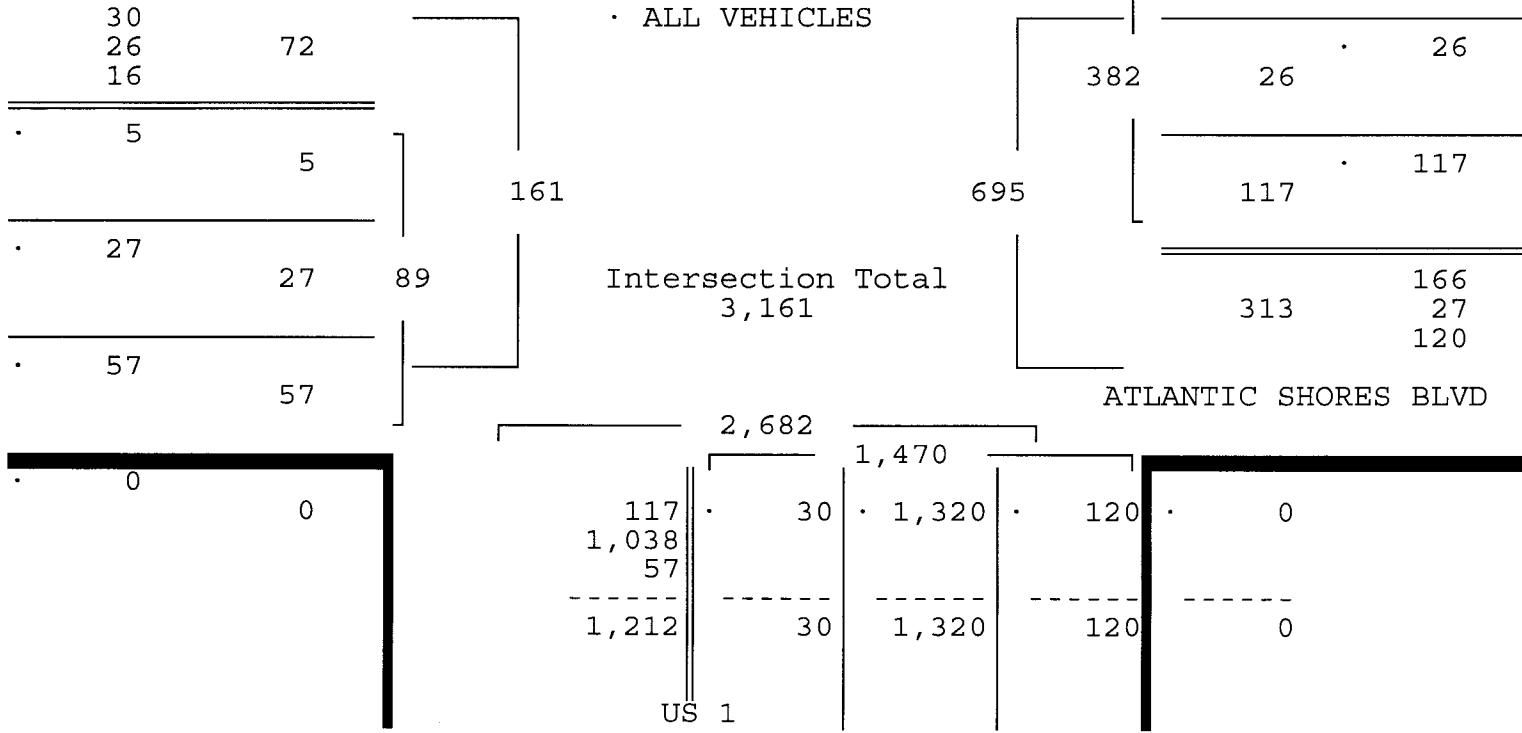
Date 04/23/15 -----

Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 04/23/15

Peak start 17:00				17:00				17:00				17:00				
Volume	0	166	1038	16	0	117	26	239	1	29	1320	120	0	5	27	57
Percent	0%	14%	85%	1%	0%	31%	7%	63%	0%	2%	90%	8%	0%	6%	30%	64%
Pk total	1220				382				1470				89			
Highest	17:00				17:00				17:30				17:15			
Volume	0	44	263	5	0	32	7	64	1	9	352	36	0	1	10	16
Hi total	312				103				398				27			
PHF	.98				.93				.92				.82			



CASINO DRIVEWAY



Traffic Survey Specialists, Inc.

624 Gardenia Terrace

Delray Beach, Florida 33444

Site Code : 00150087

ATLANTIC SHORES BOULEVARD & US 1

HALLANDALE BEACH, FLORIDA

COUNTED BY: ISIDRO GONZALEZ

SIGNALIZED

Phone (561) 272-3255

Start Date: 04/23/15

File I.D. : ATLASUS1

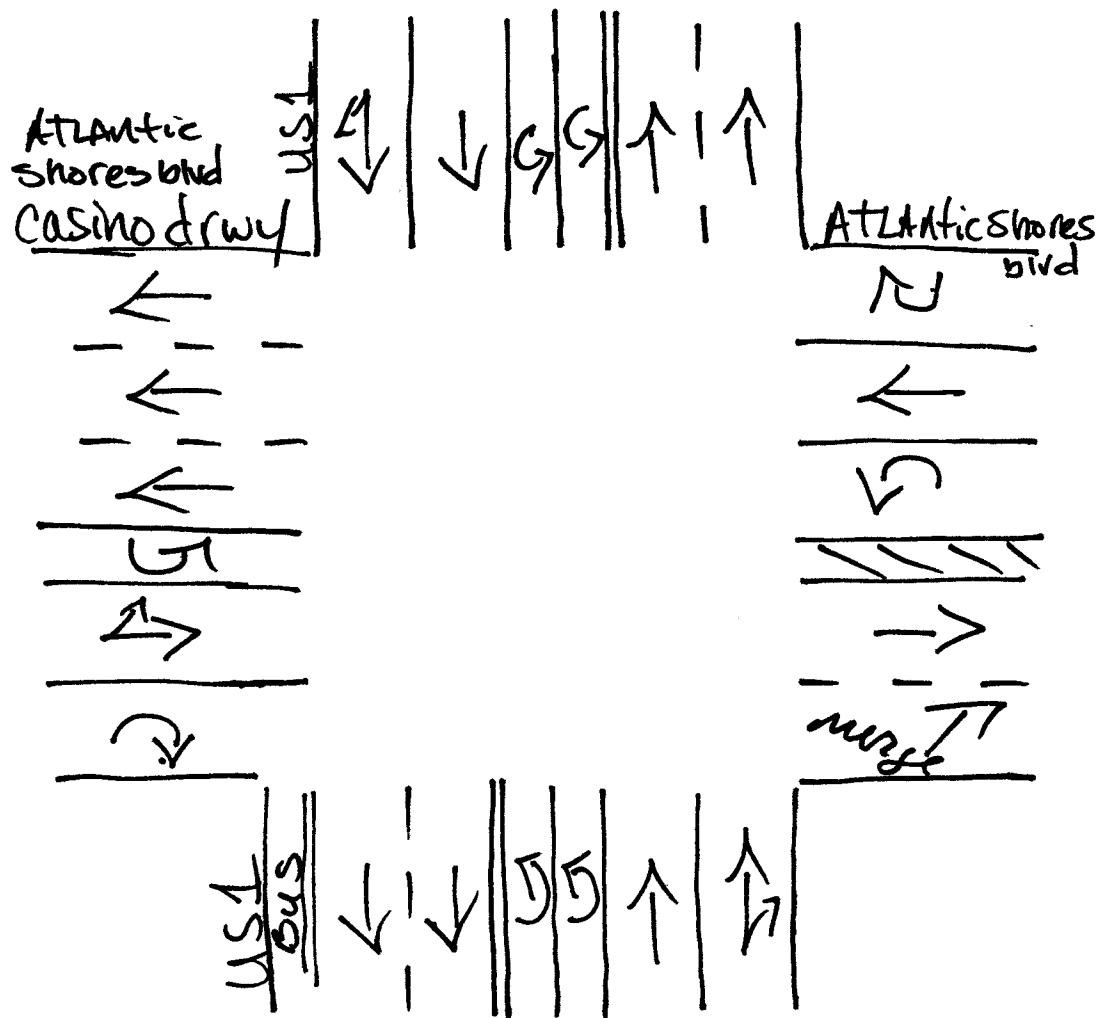
Page : 1

PEDESTRIANS & BIKES

US 1				ATLANTIC SHORES BLVD				US 1				CASINO DRIVEWAY				
From North				From East				From South				From West				
Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Total
Date 04/23/15																
07:00	0	0	0	0	0	1	0	2	0	0	0	0	0	2	5	
07:15	0	0	0	0	0	0	0	1	0	0	0	0	2	0	3	
07:30	0	0	0	0	0	3	0	1	0	0	0	0	2	0	7	
07:45	0	0	0	0	0	1	0	2	0	1	0	0	2	0	7	
Hr Total	0	0	0	0	0	5	0	6	0	1	0	0	6	0	22	
08:00	0	0	0	0	0	1	0	1	0	0	0	0	1	0	10	
08:15	0	0	0	0	0	1	0	3	0	0	0	1	0	2	9	
08:30	0	0	0	1	0	1	0	3	0	0	0	0	1	0	10	
08:45	0	0	0	0	0	1	0	0	0	1	0	0	1	0	5	
Hr Total	0	0	0	1	0	4	0	7	0	1	0	1	5	0	34	
* BREAK *																
16:00	0	0	0	0	0	0	5	1	0	0	0	0	3	0	2	10
16:15	0	0	0	0	0	2	0	5	0	0	0	0	0	0	0	7
16:30	0	0	0	0	0	1	0	1	0	0	0	0	3	0	0	5
16:45	0	0	0	1	0	0	2	0	3	0	0	0	0	1	0	7
Hr Total	0	0	0	1	0	5	0	14	0	0	0	0	0	2	1	29
17:00	0	0	0	0	0	1	0	2	0	0	0	0	1	0	4	8
17:15	0	0	0	1	0	1	0	1	0	0	0	1	0	1	0	6
17:30	0	0	0	3	0	0	0	5	0	0	0	0	0	1	0	12
17:45	0	0	0	4	0	1	0	3	0	0	1	0	2	0	0	12
Hr Total	0	0	0	8	0	3	0	11	0	1	0	3	0	9	1	38

TOTAL 0 0 0 10 | 0 17 0 38 | 0 3 0 4 | 0 21 0 30 | 123

↑
North



Hallandale Beach, Florida

April 23, 2015

Drawn by: Luis Palomino
Signalized

Traffic Survey Specialists, Inc.

624 Gardenia Terrace

Delray Beach, Florida 33444

Phone (561) 272-3255

Site Code : 00150087

Start Date: 04/23/15

File I.D. : 8STR_US1

Page : 1

ALL VEHICLES

US 1				NE 8TH STREET				US 1				NE 8TH STREET				
From North				From East				From South				From West				
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 04/23/15																
07:00	0	0	138	0	0	0	4	0	0	119	0	0	0	0	0	261
07:15	0	0	212	0	0	0	7	0	0	171	2	0	0	0	0	392
07:30	0	0	256	0	0	0	5	0	0	167	2	0	0	0	0	430
<u>07:45</u>	<u>0</u>	<u>0</u>	<u>310</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>189</u>	<u>4</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>506</u>
Hr Total	0	0	916	0	0	0	17	2	0	646	8	0	0	0	0	1589
08:00	0	0	314	0	0	0	5	0	0	203	5	0	0	0	0	527
08:15	0	0	320	0	0	0	6	0	0	228	6	0	0	0	0	560
08:30	0	0	323	0	0	0	5	0	0	223	3	0	0	0	0	554
<u>08:45</u>	<u>0</u>	<u>0</u>	<u>313</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>235</u>	<u>4</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>555</u>
Hr Total	0	0	1270	0	0	0	19	0	0	889	18	0	0	0	0	2196
* BREAK *																
16:00	0	0	279	0	0	0	2	0	0	295	7	0	0	0	0	583
16:15	0	0	259	0	0	0	5	0	0	315	5	0	0	0	0	584
16:30	0	0	227	0	0	0	3	0	0	296	12	0	0	0	0	538
<u>16:45</u>	<u>0</u>	<u>0</u>	<u>269</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>8</u>	<u>0</u>	<u>310</u>	<u>4</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>592</u>
Hr Total	0	0	1034	0	0	1	0	18	0	0	1216	28	0	0	0	2297
17:00	0	0	305	0	0	0	5	0	0	349	6	0	0	0	0	665
17:15	0	0	303	0	0	0	5	0	0	361	10	0	0	0	0	679
17:30	0	0	300	0	0	0	5	0	0	395	6	0	0	0	0	706
<u>17:45</u>	<u>0</u>	<u>0</u>	<u>295</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>336</u>	<u>9</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>642</u>
Hr Total	0	0	1203	0	0	0	17	0	0	1441	31	0	0	0	0	2692
TOTAL	0	0	4423	0	0	1	0	71	2	0	4192	85	0	0	0	8774

Traffic Survey Specialists, Inc.

624 Gardenia Terrace

Delray Beach, Florida 33444

Phone (561) 272-3255

Site Code : 00150087

Start Date: 04/23/15

File I.D. : 8STR_US1

Page : 2

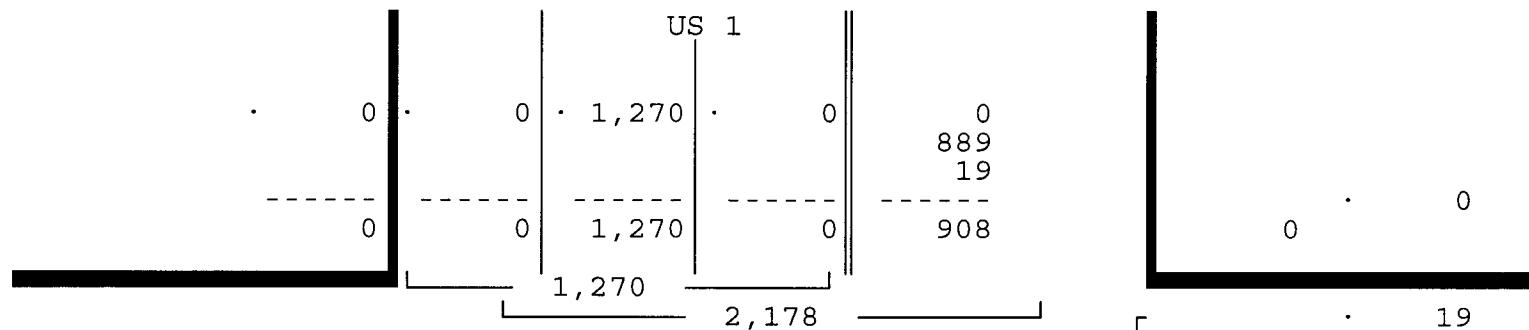
ALL VEHICLES

US 1		NE 8TH STREET				US 1				NE 8TH STREET						
From North		From East				From South				From West						
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total

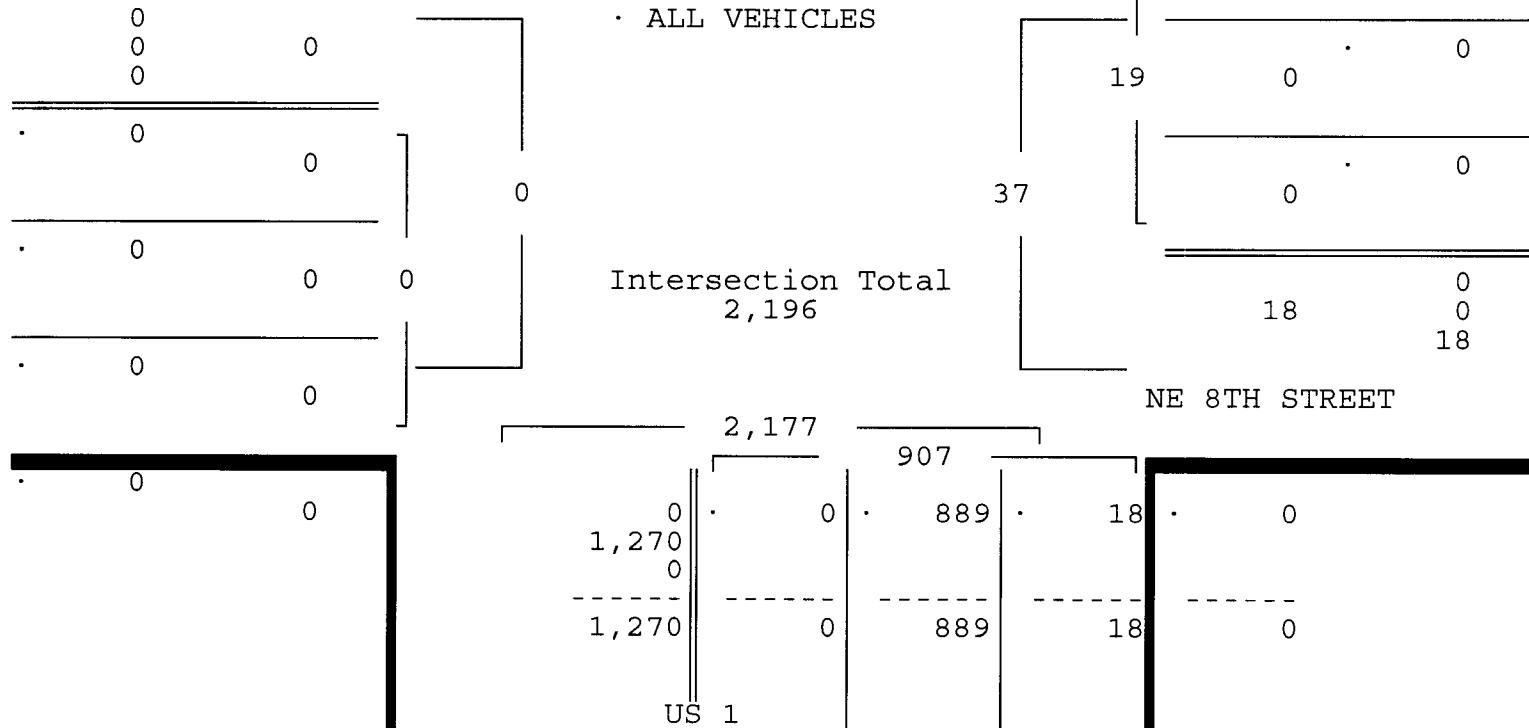
Date 04/23/15 -----

Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 04/23/15

Peak start 08:00				08:00				08:00				08:00				
Volume	0	0	1270	0	0	0	0	19	0	0	889	18	0	0	0	0
Percent	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	98%	2%	0%	0%	0%	0%
Pk total	1270				19				907				0			
Highest	08:30				08:15				08:45				07:00			
Volume	0	0	323	0	0	0	0	6	0	0	235	4	0	0	0	0
Hi total	323				6				239				0			
PHF	.98				.79				.95				.0			



NE 8TH STREET



Traffic Survey Specialists, Inc.

624 Gardenia Terrace

Delray Beach, Florida 33444

Phone (561) 272-3255

Site Code : 00150087

Start Date: 04/23/15

File I.D. : 8STR_US1

Page : 3

ALL VEHICLES

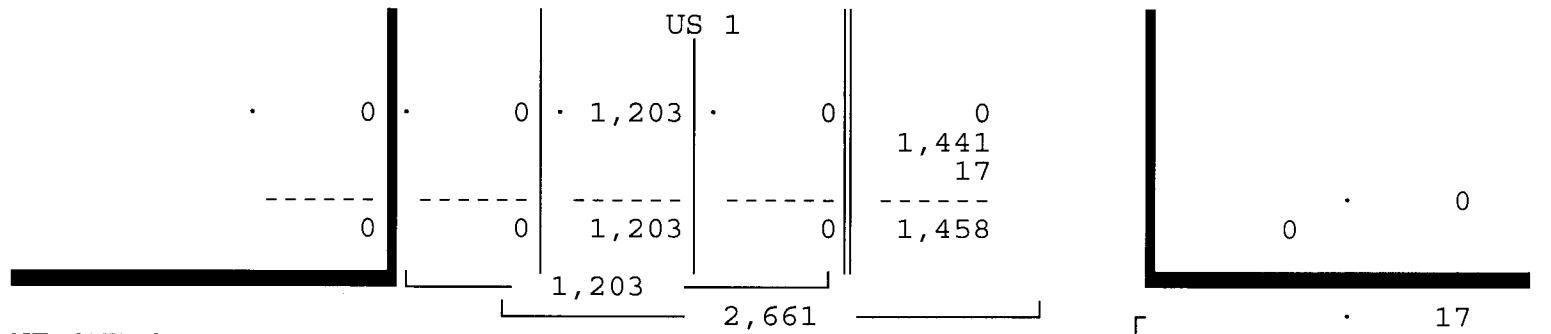
NE 8TH STREET & US 1
 HALLANDALE BEACH, FLORIDA
 COUNTED BY: MARCELLO MINO-WILZED
 NOT SIGNALIZED

US 1		NE 8TH STREET			US 1			NE 8TH STREET			
From North		From East			From South			From West			
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right

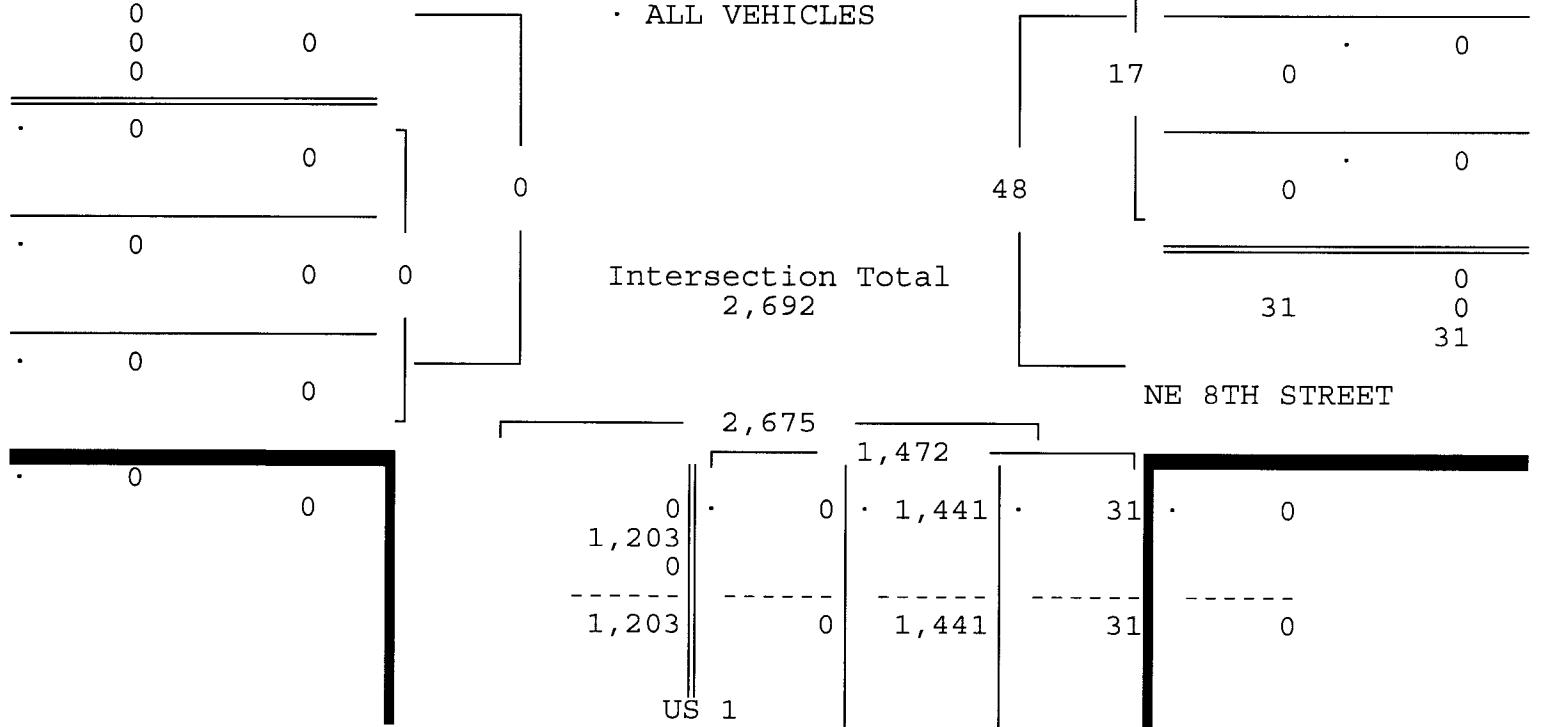
Date 04/23/15 -----

Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 04/23/15

Peak start 17:00				17:00				17:00				17:00			
Volume	0	0	1203	0	0	0	17	0	0	1441	31	0	0	0	0
Percent	0%	0%	100%	0%	0%	0%	100%	0%	0%	98%	2%	0%	0%	0%	0%
Pk total	1203				17			1472				0			
Highest	17:00				17:00			17:30				07:00			
Volume	0	0	305	0	0	0	5	0	0	395	6	0	0	0	0
Hi total	305				5			401				0			
PHF	.99				.85			.92				.0			



NE 8TH STREET



Traffic Survey Specialists, Inc.

624 Gardenia Terrace

Delray Beach, Florida 33444

Phone (561) 272-3255

Site Code : 00150087

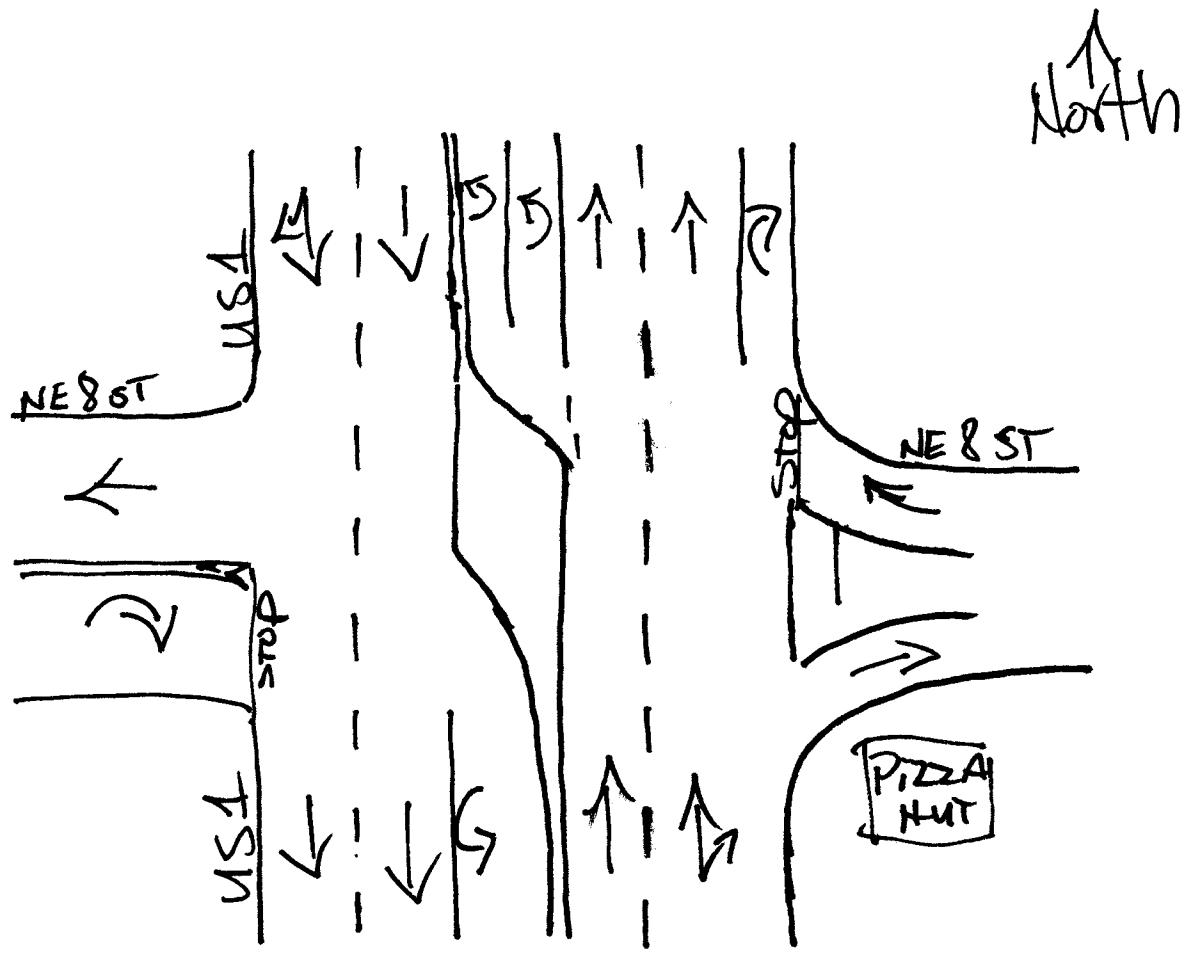
Start Date: 04/23/15

File I.D. : 8STR_US1

Page : 1

PEDESTRIANS & BIKES

US 1				NE 8TH STREET				US 1				NE 8TH STREET				
From North				From East				From South				From West				
Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Total
Date 04/23/15																
07:00	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	4
07:15	0	0	0	0	0	0	0	2	0	0	0	0	0	3	0	5
07:30	0	0	0	0	0	5	0	1	0	0	0	0	0	0	0	6
<u>07:45</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>4</u>
Hr Total	0	0	0	0	0	7	0	5	0	0	0	0	0	4	0	19
08:00	0	0	0	0	0	1	0	4	0	0	0	0	0	1	1	7
08:15	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	3
08:30	0	0	0	0	0	1	0	2	0	0	0	0	0	1	0	4
<u>08:45</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>2</u>
Hr Total	0	0	0	0	0	5	0	6	0	0	0	0	0	4	0	16
* BREAK *																
16:00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	2	5
16:15	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
16:30	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	5
<u>16:45</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>2</u>
Hr Total	0	0	0	0	0	4	0	1	0	0	0	0	0	6	0	14
17:00	0	0	0	0	0	1	0	11	0	0	0	0	0	1	0	15
17:15	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	4
17:30	0	0	0	0	0	0	0	6	0	0	0	0	0	1	0	12
<u>17:45</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>4</u>
Hr Total	0	0	0	0	0	4	0	20	0	0	0	0	0	4	0	35
TOTAL																
	0	0	0	0	0	20	0	32	0	0	0	0	0	18	0	14 84



Hallandale Beach, Florida

April 23, 2015

drawn by: Luis Paloncino

NOT signalized

Traffic Survey Specialists, Inc.

624 Gardenia Terrace

Delray Beach, Florida 33444

Phone (561) 272-3255

Site Code : 00150087

Start Date: 04/23/15

File I.D. : 3STRUS1_

Page : 1

NE 3RD STREET & US 1

HALLANDALE BEACH, FLORIDA

COUNTED BY: LUIS PALOMINO

SIGNALIZED

ALL VEHICLES

US 1				NE 3RD STREET				US 1				NE 3RD STREET				
From North				From East				From South				From West				
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 04/23/15																

07:00	0	3	121	5	0	2	6	0	1	16	100	0	0	8	1	9	272
07:15	0	3	187	9	0	7	19	1	0	14	146	1	0	11	8	13	419
07:30	0	9	235	5	0	13	10	4	3	8	143	1	0	10	9	14	464
<u>07:45</u>	<u>0</u>	<u>9</u>	<u>263</u>	<u>14 </u>	<u>0</u>	<u>14</u>	<u>14</u>	<u>4 </u>	<u>1</u>	<u>12</u>	<u>148</u>	<u>2 </u>	<u>0</u>	<u>25</u>	<u>14</u>	<u>20 </u>	<u>540</u>
Hr Total	0	24	806	33	0	36	49	9	5	50	537	4	0	54	32	56	1695
08:00	0	7	258	12	0	7	17	3	2	12	192	4	0	16	18	22	570
08:15	0	8	309	15	0	6	11	2	2	10	211	2	0	19	17	16	628
08:30	0	6	280	8	0	10	16	3	0	8	193	3	0	11	12	10	560
<u>08:45</u>	<u>0</u>	<u>7</u>	<u>264</u>	<u>13 </u>	<u>0</u>	<u>5</u>	<u>10</u>	<u>2 </u>	<u>1</u>	<u>18</u>	<u>217</u>	<u>0 </u>	<u>0</u>	<u>23</u>	<u>25</u>	<u>19 </u>	<u>604</u>
Hr Total	0	28	1111	48	0	28	54	10	5	48	813	9	0	69	72	67	2362

----- * BREAK *

16:00	1	6	241	11	0	2	12	3	1	13	297	4	0	14	13	20	638
16:15	0	3	224	7	0	12	15	1	3	12	295	4	0	20	17	11	624
16:30	1	4	197	6	0	10	20	3	2	21	304	5	0	18	21	11	623
<u>16:45</u>	<u>0</u>	<u>5</u>	<u>232</u>	<u>15 </u>	<u>0</u>	<u>6</u>	<u>10</u>	<u>3 </u>	<u>2</u>	<u>20</u>	<u>294</u>	<u>3 </u>	<u>0</u>	<u>10</u>	<u>14</u>	<u>20 </u>	<u>634</u>
Hr Total	2	18	894	39	0	30	57	10	8	66	1190	16	0	62	65	62	2519
17:00	0	11	232	14	0	10	24	22	1	31	328	0	0	23	21	18	735
17:15	1	6	259	15	0	3	19	23	0	30	339	6	0	21	23	14	759
17:30	0	9	283	14	0	7	22	22	4	26	318	3	0	16	27	23	774
<u>17:45</u>	<u>0</u>	<u>7</u>	<u>240</u>	<u>8 </u>	<u>0</u>	<u>9</u>	<u>28</u>	<u>7 </u>	<u>0</u>	<u>26</u>	<u>316</u>	<u>4 </u>	<u>0</u>	<u>20</u>	<u>28</u>	<u>21 </u>	<u>714</u>
Hr Total	1	33	1014	51	0	29	93	74	5	113	1301	13	0	80	99	76	2982

TOTAL 3 103 3825 171 | 0 123 253 103 | 23 277 3841 42 | 0 265 268 261 | 9558

Traffic Survey Specialists, Inc.

624 Gardenia Terrace

Delray Beach, Florida 33444

Phone (561) 272-3255

Site Code : 00150087

Start Date: 04/23/15

File I.D. : 3STRU\$1_

Page : 2

NE 3RD STREET & US 1

HALLANDALE BEACH, FLORIDA

COUNTED BY: LUIS PALOMINO

SIGNALIZED

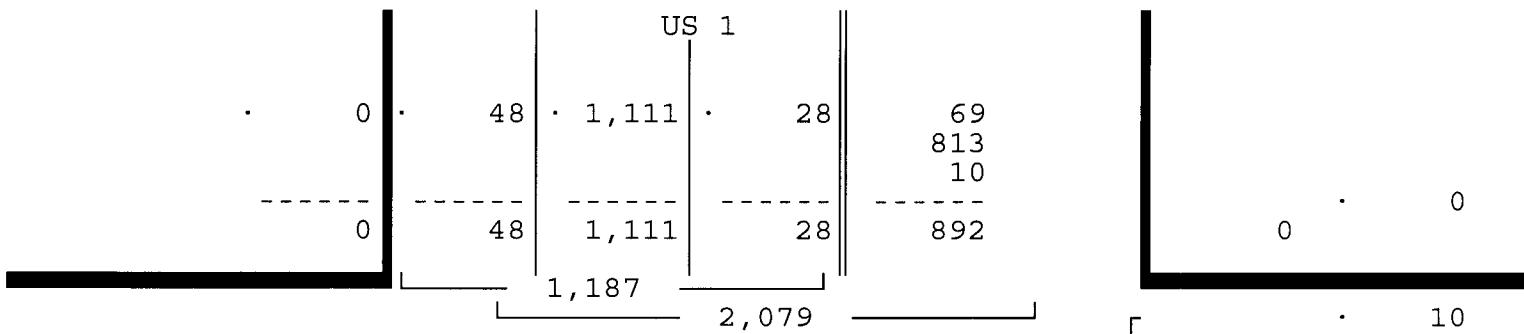
ALL VEHICLES

US 1				NE 3RD STREET				US 1				NE 3RD STREET			
From North				From East				From South				From West			
UTurn Left Thru Right				UTurn Left Thru Right				UTurn Left Thru Right				UTurn Left Thru Right			

Date 04/23/15 -----

Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 04/23/15

Peak start 08:00				08:00				08:00				08:00			
Volume 0 28 1111 48				0 28 54 10				5 48 813 9				0 69 72 67			
Percent 0% 2% 94% 4%				0% 30% 59% 11%				1% 5% 93% 1%				0% 33% 35% 32%			
Pk total 1187				92				875				208			
Highest 08:15				08:30				08:45				08:45			
Volume 0 8 309 15				0 10 16 3				1 18 217 0				0 23 25 19			
Hi total 332				29				236				67			
PHF .89				.79				.93				.78			



NE 3RD STREET

53	155
54	
48	

69	69

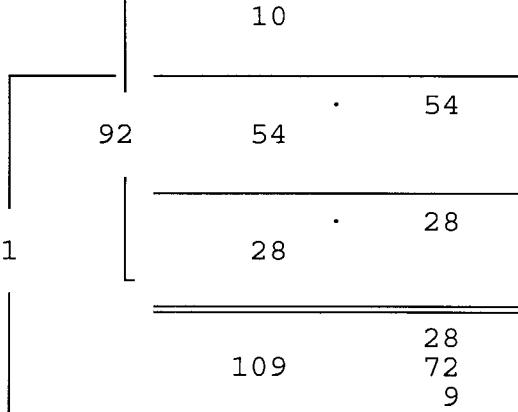
72	72

67	67

ALL VEHICLES

363	201

Intersection Total	2,362



NE 3RD STREET

28	53	813	9
1,111	53	813	9
67	53	813	9

1,206	813	875	0

US 1			

Traffic Survey Specialists, Inc.

624 Gardenia Terrace

Delray Beach, Florida 33444

Phone (561) 272-3255

Site Code : 00150087

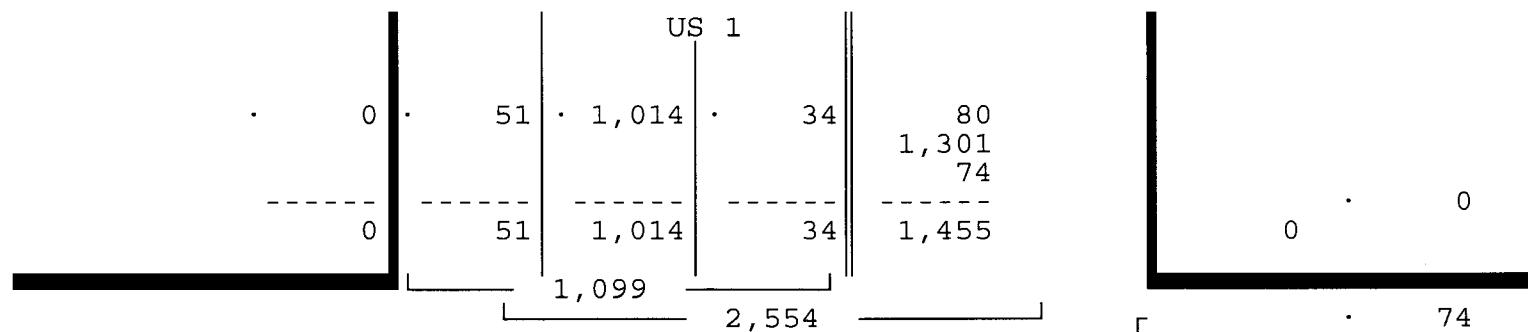
Start Date: 04/23/15

File I.D. : 3STRUS1_

Page : 3

ALL VEHICLES

US 1				NE 3RD STREET				US 1				NE 3RD STREET				
From North				From East				From South				From West				
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 04/23/15 -----																
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 04/23/15																
Peak start 17:00				17:00				17:00				17:00				
Volume	1	33	1014	51	0	29	93	74	5	113	1301	13	0	80	99	76
Percent	0%	3%	92%	5%	0%	15%	47%	38%	0%	8%	91%	1%	0%	31%	39%	30%
Pk total	1099				196				1432				255			
Highest	17:30				17:00				17:15				17:45			
Volume	0	9	283	14	0	10	24	22	0	30	339	6	0	20	28	21
Hi total	306				56				375				69			
PHF	.90				.88				.95				.92			



NE 3RD STREET

118			
93			
51			
=====			
80			
80			
80			
517			
99			
99			
255			
99			
255			
99			
76			
76			
76			

ALL VEHICLES

Intersection Total
2,982

196			
93			
=====			
342			
29			
29			
29			
146			
99			
13			

NE 3RD STREET

0			
0			
29			
118			
1,014			
76			
1,119			
118			
1,301			
1,301			
13			
13			
0			

US 1

Traffic Survey Specialists, Inc.

624 Gardenia Terrace

Delray Beach, Florida 33444

Phone (561) 272-3255

Site Code : 00150087

Start Date: 04/23/15

File I.D. : 3STRU\$1_

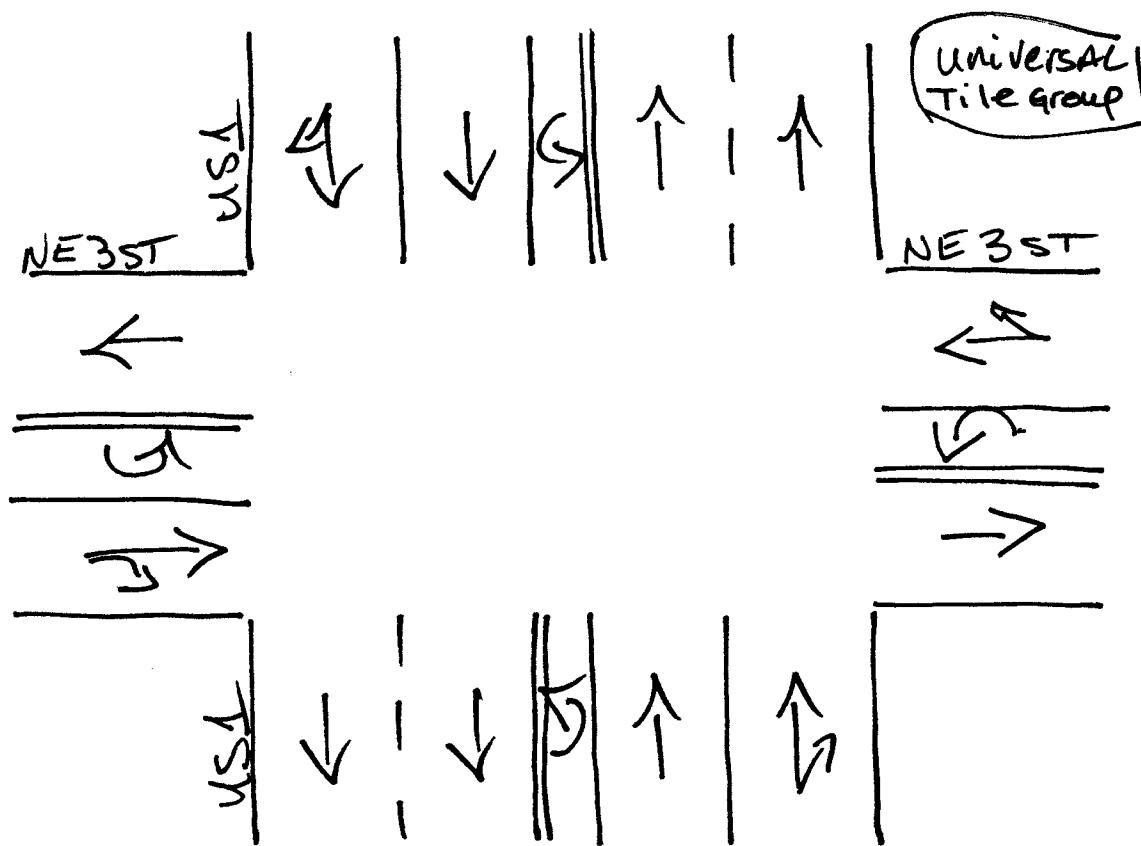
Page : 1

PEDESTRIANS & BIKES

US 1				NE 3RD STREET				US 1				NE 3RD STREET				
From North				From East				From South				From West				
Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Total
Date 04/23/15																
07:00	0	0	0	0	0	2	0	1	0	1	0	0	0	0	4	9
07:15	0	0	0	0	0	1	0	4	0	1	0	5	0	3	0	14
07:30	0	0	0	0	0	4	0	0	0	0	0	0	3	0	1	8
07:45	0	0	0	1	0	1	0	0	0	0	1	0	3	0	0	6
Hr Total	0	0	0	1	0	8	0	5	0	2	0	7	0	9	0	37
08:00	0	0	0	0	0	2	0	1	0	0	0	2	0	2	5	12
08:15	0	0	0	0	0	1	0	0	0	0	0	2	0	2	0	8
08:30	0	0	0	1	0	0	0	2	0	0	0	0	1	0	3	7
08:45	0	0	0	2	0	1	0	3	0	0	0	0	0	2	5	13
Hr Total	0	0	0	3	0	4	0	6	0	0	0	4	0	7	0	40
* BREAK *																
16:00	0	0	0	1	0	1	0	2	0	0	0	1	0	0	2	7
16:15	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	4
16:30	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2
16:45	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	5
Hr Total	0	0	0	1	0	4	0	3	0	0	0	1	0	3	0	18
17:00	0	1	0	0	0	3	0	1	0	0	0	0	0	2	0	9
17:15	0	0	0	2	0	1	0	5	0	0	0	1	0	1	0	12
17:30	0	0	0	1	0	0	0	3	0	0	0	4	0	2	0	13
17:45	0	1	0	1	0	2	0	0	0	0	0	1	0	1	0	6
Hr Total	0	2	0	4	0	6	0	9	0	0	0	6	0	6	0	40

TOTAL 0 2 0 9 | 0 22 0 23 | 0 2 0 18 | 0 25 0 34 | 135

↑
North



Hallandale Beach, Florida

April 23, 2015

drawn by: Luis Palomino
signalized

Traffic Survey Specialists, Inc.

624 Gardenia Terrace

Delray Beach, Florida 33444

Phone (561) 272-3255

Site Code : 00150087

Start Date: 04/23/15

File I.D. : HBBUS1

Page : 1

HALLANDALE BEACH BOULEVARD & US 1

HALLANDALE BEACH, FLORIDA

COUNTED BY: S. SALVO & R. MARTINEZ

SIGNALIZED

ALL VEHICLES

US 1				HALLANDALE BEACH BLVD				US 1				HALLANDALE BEACH BLVD									
From North				From East				From South				From West									
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total					
Date 04/23/15 -----																					
07:00	0	40	111	10		1	74	186	23		2	36	86	36		0	17	147	32		801
07:15	1	38	146	14		1	103	220	22		2	41	93	53		0	23	168	32		957
07:30	4	34	224	14		0	114	215	22		2	38	104	72		2	21	169	45		1080
07:45	1	61	211	13		0	107	247	34		6	50	97	59		0	24	226	63		1199
Hr Total	6	173	692	51		2	398	868	101		12	165	380	220		2	85	710	172		4037
08:00	2	52	271	10		1	116	241	29		3	49	151	85		0	27	216	59		1312
08:15	6	76	261	9		0	104	218	40		5	67	176	110		0	17	205	71		1365
08:30	2	64	204	9		0	115	253	38		16	79	124	85		0	31	216	68		1304
08:45	3	54	249	14		2	124	223	27		8	72	191	91		0	21	229	55		1363
Hr Total	13	246	985	42		3	459	935	134		32	267	642	371		0	96	866	253		5344
----- * BREAK * -----																					
16:00	10	70	203	24		1	110	238	33		3	129	250	137		1	32	160	49		1450
16:15	4	65	151	18		0	97	277	38		3	122	211	107		0	37	196	50		1376
16:30	9	63	180	14		0	120	245	49		7	86	237	101		0	35	173	51		1370
16:45	5	70	150	17		1	95	253	52		0	114	212	90		0	35	155	58		1307
Hr Total	28	268	684	73		2	422	1013	172		13	451	910	435		1	139	684	208		5503
17:00	2	68	198	23		0	108	293	56		8	109	254	117		0	25	171	46		1478
17:15	8	66	221	20		0	127	254	50		2	111	301	129		0	39	143	47		1518
17:30	7	87	232	21		0	94	222	49		8	111	252	102		0	28	206	72		1491
17:45	4	74	197	27		1	110	192	51		3	108	243	119		1	34	218	70		1452
Hr Total	21	295	848	91		1	439	961	206		21	439	1050	467		1	126	738	235		5939
TOTAL	68	982	3209	257		8	1718	3777	613		78	1322	2982	1493		4	446	2998	868		20823

Traffic Survey Specialists, Inc.

624 Gardenia Terrace

Delray Beach, Florida 33444

Phone (561) 272-3255

Site Code : 00150087

Start Date: 04/23/15

File I.D. : HBBUS1

Page : 2

HALLANDALE BEACH BOULEVARD & US 1
 HALLANDALE BEACH, FLORIDA
 COUNTED BY: S. SALVO & R. MARTINEZ
 SIGNALIZED

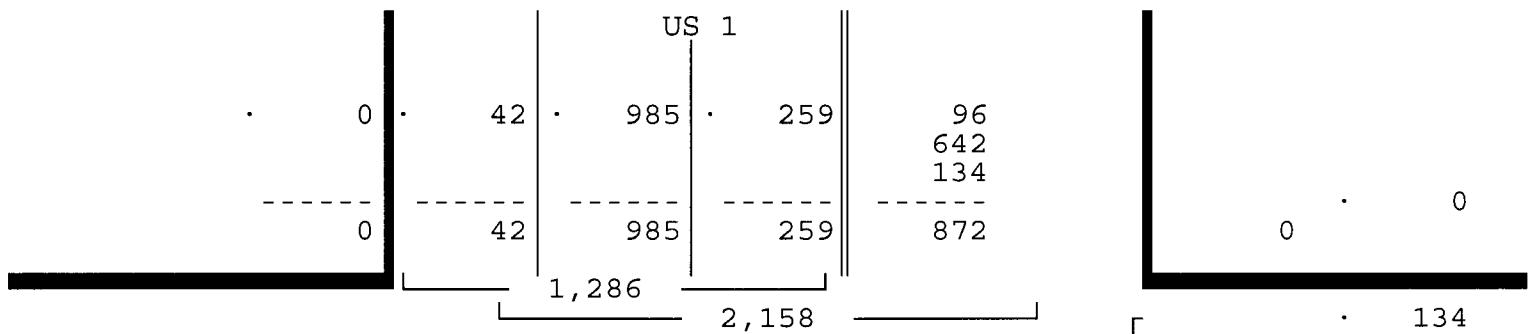
ALL VEHICLES

US 1				HALLANDALE BEACH BLVD				US 1				HALLANDALE BEACH BLVD			
From North				From East				From South				From West			
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right
															Total

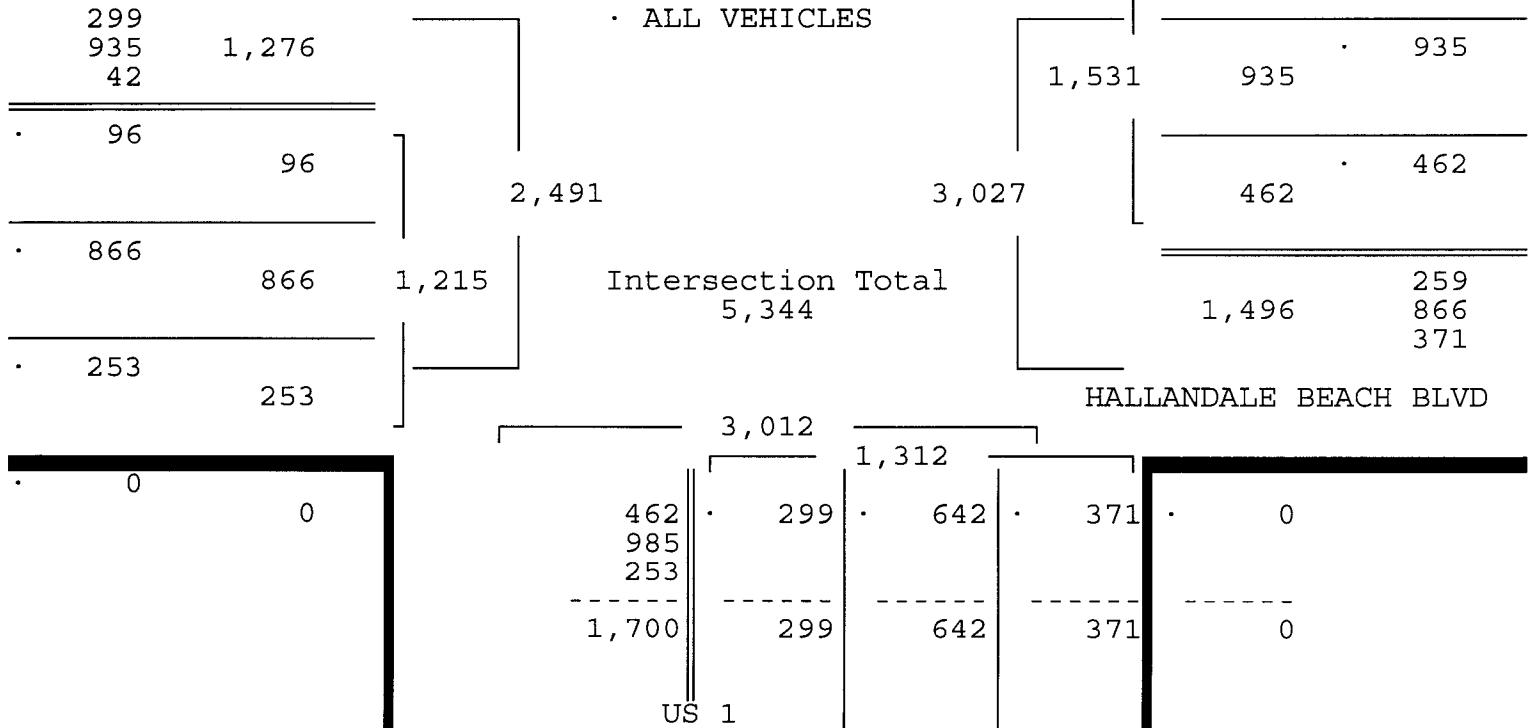
Date 04/23/15 -----

Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 04/23/15

Peak start 08:00				08:00				08:00				08:00				
Volume	13	246	985	42	3	459	935	134	32	267	642	371	0	96	866	253
Percent	1%	19%	77%	3%	0%	30%	61%	9%	2%	20%	49%	28%	0%	8%	71%	21%
Pk total	1286				1531				1312				1215			
Highest	08:15				08:30				08:45				08:30			
Volume	6	76	261	9	0	115	253	38	8	72	191	91	0	31	216	68
Hi total	352				406				362				315			
PHF	.91				.94				.91				.96			



HALLANDALE BEACH BLVD



Traffic Survey Specialists, Inc.

HALLANDALE BEACH BOULEVARD & US 1
 HALLANDALE BEACH, FLORIDA
 COUNTED BY: S. SALVO & R. MARTINEZ
 SIGNALIZED

624 Gardenia Terrace
 Delray Beach, Florida 33444
 Phone (561) 272-3255

Site Code : 00150087
 Start Date: 04/23/15
 File I.D. : HBBUS1
 Page : 3

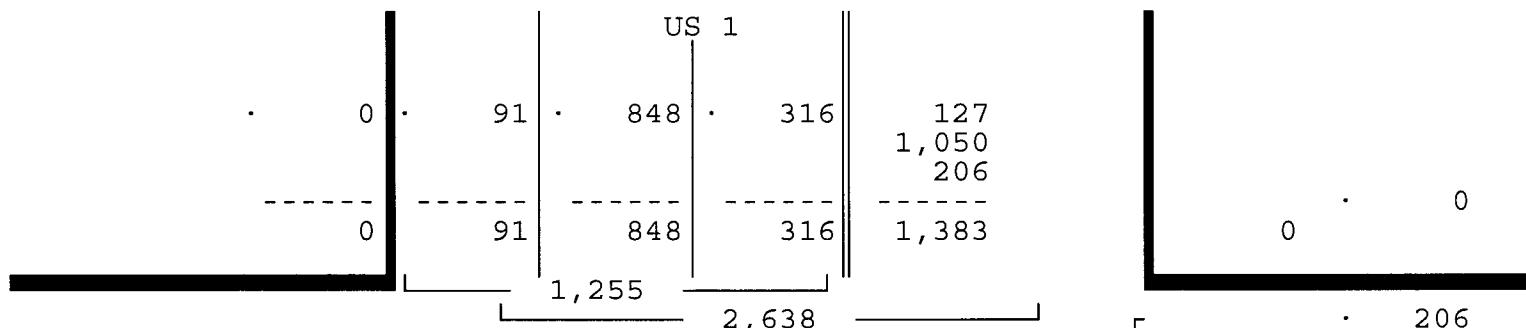
ALL VEHICLES

US 1				HALLANDALE BEACH BLVD				US 1				HALLANDALE BEACH BLVD			
From North				From East				From South				From West			
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right

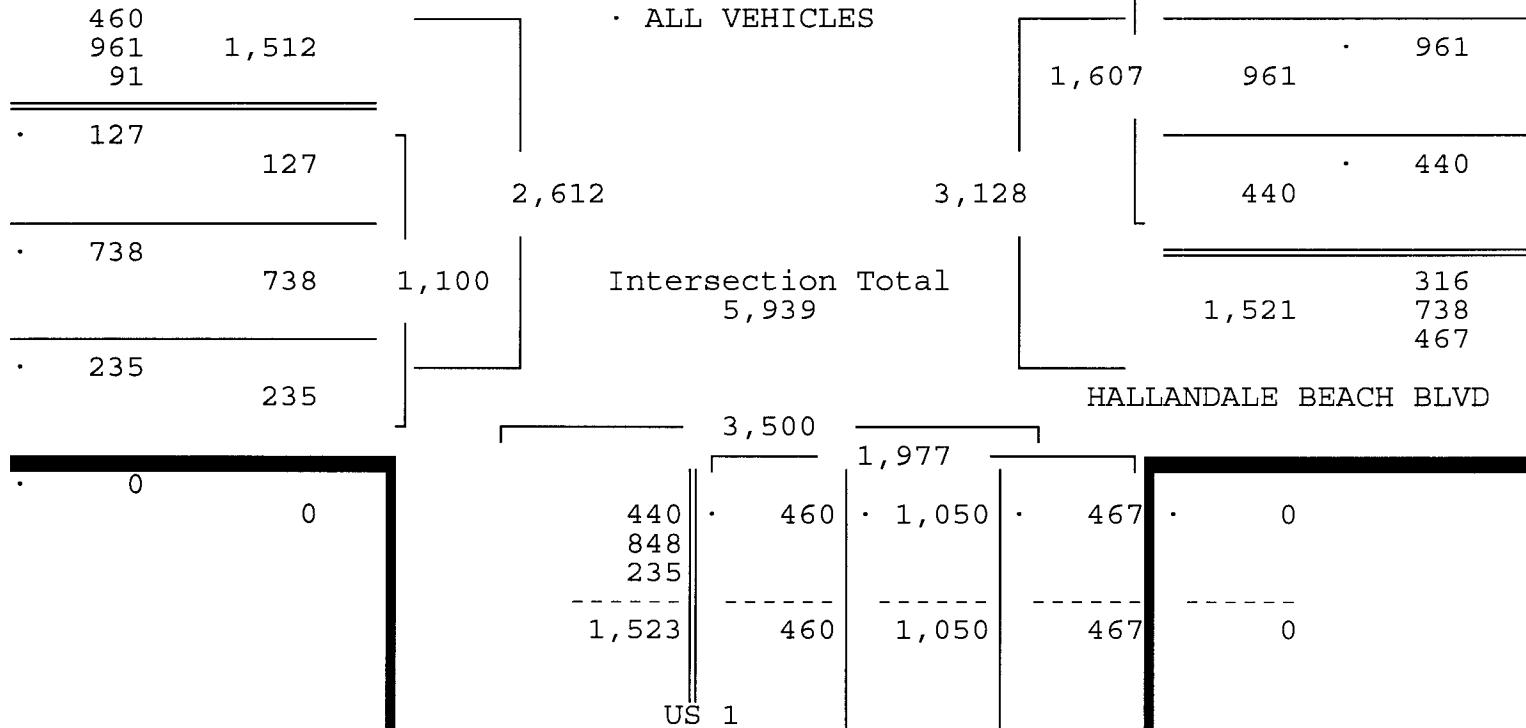
Date 04/23/15 -----

Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 04/23/15

Peak start 17:00				17:00				17:00				17:00				
Volume	21	295	848	91	1	439	961	206	21	439	1050	467	1	126	738	235
Percent	2%	24%	68%	7%	0%	27%	60%	13%	1%	22%	53%	24%	0%	11%	67%	21%
Pk total	1255				1607				1977				1100			
Highest	17:30				17:00				17:15				17:45			
Volume	7	87	232	21	0	108	293	56	2	111	301	129	1	34	218	70
Hi total	347				457				543				323			
PHF	.90				.88				.91				.85			



HALLANDALE BEACH BLVD



Traffic Survey Specialists, Inc.

HALLANDALE BEACH BOULEVARD & US 1

HALLANDALE BEACH, FLORIDA

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Page : 1

PEDESTRIANS & BIKES

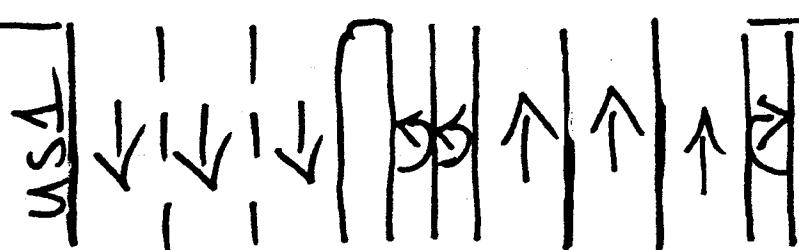
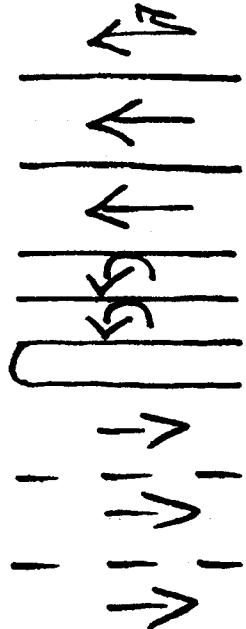
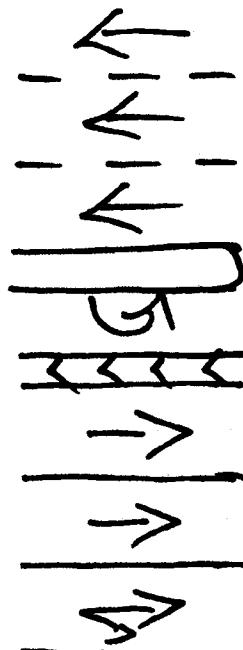
US 1				HALLANDALE BEACH BLVD				US 1				HALLANDALE BEACH BLVD					
From North				From East				From South				From West					
Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Total	
Date 04/23/15																	
07:00	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	3	
07:15	0	0	0	1	0	0	0	5	0	1	0	4	0	0	0	11	
07:30	0	0	0	1	0	4	0	3	0	0	0	3	0	0	0	13	
<u>07:45</u>	0	0	0	0	0	0	1	0	3	0	5	0	0	0	5	14	
Hr Total	0	0	0	2	0	5	0	10	0	5	0	12	0	0	0	41	
08:00	0	0	0	0	0	2	0	5	0	1	0	1	0	1	1	11	
08:15	0	0	0	1	0	0	0	0	0	0	0	2	0	2	0	12	
08:30	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	3	
<u>08:45</u>	0	2	0	0	0	2	0	2	0	0	0	0	0	2	0	9	
Hr Total	0	2	0	1	0	4	0	8	0	2	0	3	0	5	0	35	
* BREAK *																	
16:00	0	1	0	1	0	1	0	4	0	2	0	3	0	0	0	12	
16:15	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	4	
16:30	0	2	0	2	0	0	0	2	0	0	0	1	0	0	0	7	
<u>16:45</u>	0	0	0	1	0	0	0	3	0	0	0	1	0	0	0	5	
Hr Total	0	3	0	4	0	1	0	10	0	3	0	7	0	0	0	28	
17:00	0	0	0	4	0	3	0	2	0	0	0	3	0	0	1	13	
17:15	0	1	0	2	0	1	0	1	0	0	0	0	0	0	0	5	
17:30	0	2	0	6	0	0	0	10	0	1	0	1	0	0	0	20	
<u>17:45</u>	0	3	0	5	0	0	0	0	0	0	0	0	0	1	2	11	
Hr Total	0	6	0	17	0	4	0	13	0	1	0	4	0	1	0	49	
TOTAL	0	11	0	24	0	14	0	41	0	11	0	26	0	6	0	20	153

Chevron

Hallandale
Beach Blvd

Hallandale
Beach Blvd

North



Hallandale Beach, Florida

December 10, 2014
drawn by: Luis Palomino
Signalized

**APPENDIX E: GROWTH RATE CALCULATIONS AND VOLUME
DEVELOPMENT WORKSHEETS**

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2014 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 0176 - SR 5 / US 1 - 0.1 MI N OF PEMBROKE RD, BROWARD CO

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2014	28180 C	N 14309	S 13871	9.00	53.30	2.10
2013	27593 C	N 14209	S 13384	9.00	53.40	2.00
2012	27167 C	N 13986	S 13181	9.00	53.70	2.00
2011	26893 C	N 13852	S 13041	9.00	53.30	2.00
2010	26513 C	N 13628	S 12885	8.28	52.80	2.10
2009	25616 C	N 13177	S 12439	8.48	54.02	2.20
2008	25717 C	N 13221	S 12496	8.72	53.65	2.30
2007	27079 C	N 13993	S 13086	8.58	53.34	2.20
2006	26851 C	N 13884	S 12967	8.50	55.12	2.00
2005	33500 F	N	S	8.20	57.30	2.00
2004	32244 C	N 16442	S 15802	8.20	57.30	2.00
2003	31336 C	N 16022	S 15314	8.20	57.30	2.00
2002	31310 C	N 16029	S 15281	8.20	56.00	2.00
2001	30113 C	N 15336	S 14777	8.30	55.30	1.80
2000	29298 C	N 15000	S 14298	8.20	55.10	1.90
1999	28720 C	N 14791	S 13929	8.20	56.80	1.30

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; F = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

VOLUME DEVELOPMENT SHEET
Pembroke Road & US 1/N Federal Highway

Growth Rate = 0.50%
 Peak Season = 1.02 1.02
 Buildout Year = 2020 2020
 Years = 5 5

<u>AM Peak Hour</u>												
	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 4/23/2015	280	746	7	35	827	113	100	241	452	20	246	9
Peak Season Volume	286	761	7	36	844	115	102	246	461	20	251	9
Traffic Volume Growth	7	19	0	1	21	3	3	6	12	1	6	0
Hallandale Artsquare Committed												
Inbound Traffic Assignment												
Inbound Traffic Volumes	0	0	0	0		40%	0	0	0	0	0	0
Outbound Traffic Assignment												
Outbound Traffic Volumes	0	0	0	0	27	0	0	0	0	0	0	0
Total Hallandale Artsquare	0	0	0	0	27	0	0	0	0	0	0	0
2020 Background Traffic	293	780	7	37	892	118	105	252	473	21	257	9
Project Traffic												
Inbound Traffic Assignment												
Inbound Traffic Volumes	0	0	0	0		14.0%	0	0	54.0%	0	0	0
Outbound Traffic Assignment												
Outbound Traffic Volumes	54.0%	14.0%	4	1	0	0	0	0	25	0	0	0
Project Traffic	4	1	0	0	6	0	0	0	25	0	0	0
TOTAL TRAFFIC	297	781	7	37	898	118	105	252	498	21	257	9
<u>PM Peak Hour</u>												
	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 4/23/2015	415	1,131	10	63	843	108	161	272	431	6	201	30
Peak Season Volume	423	1,154	10	64	860	110	164	277	440	6	205	31
Traffic Volume Growth	11	29	0	2	22	3	4	7	11	0	5	1
Hallandale Artsquare Committed												
Inbound Traffic Assignment	0%	0%	0%	0%	40%	0%	0%	0%	0%	0%	0%	0%
Inbound Traffic Volumes	0	0	0	0	65	0	0	0	0	0	0	0
Outbound Traffic Assignment	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Traffic Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Total Hallandale Artsquare	0	0	0	0	65	0	0	0	0	0	0	0
2020 Background Traffic	434	1,183	10	66	947	113	168	284	451	6	210	32
Project Traffic												
Inbound Traffic Assignment	0%	0%	0%	0%	14%	0%	0%	0%	54%	0%	0%	0%
Inbound Traffic Volumes	0	0	0	0	12	0	0	0	47	0	0	0
Outbound Traffic Assignment	54%	14%	85	22	0	0	0	0	0%	0%	0%	0%
Outbound Traffic Volumes					0	0	0	0	0	0	0	0
Project Traffic	85	22	0	0	12	0	0	0	47	0	0	0
TOTAL TRAFFIC	519	1,205	10	66	959	113	168	284	498	6	210	32

VOLUME DEVELOPMENT SHEET
Pembroke Road & NE 1st Avenue

Growth Rate = 0.50%
 Peak Season = 1.02 1.02
 Buildout Year = 2020 2020
 Years = 5 5

<u>AM Peak Hour</u>												
	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 10/28/2015	78	122	36	0	0	0	117	988	0	0	859	23
Peak Season Volume	80	124	37	0	0	0	119	1,008	0	0	876	23
Traffic Volume Growth	2	3	1	0	0	0	3	25	0	0	22	1
Hallandale Artsquare Committed												
Inbound Traffic Assignment												
Inbound Traffic Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Outbound Traffic Assignment												
Outbound Traffic Volumes	0	1%	0	0	0	0	0	0	0	0	0	0
Total Hallandale Artsquare	0	1	0	0	0	0	0	0	0	0	0	0
2020 Background Traffic	82	128	38	0	0	0	122	1,033	0	0	898	24
Project Traffic												
Inbound Traffic Assignment												
Inbound Traffic Volumes	0	0	1.0%	0	0	0	0	53.0%	24	0	0	0
Outbound Traffic Assignment												
Outbound Traffic Volumes	0	0	0	0	0	0	0	0	0	0	43.0%	11.0%
Project Traffic	0	0	0	0	0	0	0	24	0	0	3	1
TOTAL TRAFFIC	82	128	38	0	0	0	122	1,057	0	0	901	25
<u>PM Peak Hour</u>												
	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 10/28/2015	231	268	37	0	0	0	111	941	0	0	869	20
Peak Season Volume	236	273	38	0	0	0	113	960	0	0	886	20
Traffic Volume Growth	6	7	1	0	0	0	3	24	0	0	22	1
Hallandale Artsquare Committed												
Inbound Traffic Assignment	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Traffic Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Outbound Traffic Assignment	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Traffic Volumes	0	1	0	0	0	0	0	0	0	0	0	0
Total Hallandale Artsquare	0	1	0	0	0	0	0	0	0	0	0	0
2020 Background Traffic	242	281	39	0	0	0	116	984	0	0	908	21
Project Traffic												
Inbound Traffic Assignment	0%	0%	1%	0%	0%	0%	0%	53%	0%	0%	0%	0%
Inbound Traffic Volumes	0	0	1	0	0	0	0	46	0	0	0	0
Outbound Traffic Assignment	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	43%	11%
Outbound Traffic Volumes	0	0	0	0	0	0	0	0	0	0	68	17
Project Traffic	0	0	1	0	0	0	0	46	0	0	68	17
TOTAL TRAFFIC	242	281	40	0	0	0	116	1,030	0	0	976	38

VOLUME DEVELOPMENT SHEET
Pembroke Road & N Dixie Highway

Growth Rate = 0.50%

Peak Season = 1.02 1.02

Buildout Year = 2020 2020

Years = 5 5

<u>AM Peak Hour</u>												
	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 10/28/2015	0	0	0	128	397	113	0	895	52	67	839	0
Peak Season Volume	0	0	0	131	405	115	0	913	53	68	856	0
Traffic Volume Growth	0	0	0	3	10	3	0	23	1	2	22	0
Hallandale Artsquare Committed					1%							
Inbound Traffic Assignment					1							
Inbound Traffic Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Outbound Traffic Assignment												
Outbound Traffic Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Total Hallandale Artsquare	0	0	0	0	1	0	0	0	0	0	0	0
2020 Background Traffic	0	0	0	134	416	118	0	936	54	70	878	0
Project Traffic					11.0%			42.0%				
Inbound Traffic Assignment					5	0	0	19	0	0	0	0
Inbound Traffic Volumes	0	0	0		0	0	0	0	0	0	0	0
Outbound Traffic Assignment												
Outbound Traffic Volumes	0	0	0	0	0	0	0	0	0	0	3	0
Project Traffic	0	0	0	5	0	0	0	19	0	0	3	0
TOTAL TRAFFIC	0	0	0	139	416	118	0	955	54	70	881	0
<u>PM Peak Hour</u>												
	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 10/28/2015	0	0	0	136	271	123	0	899	41	65	1,009	0
Peak Season Volume	0	0	0	139	276	125	0	917	42	66	1,029	0
Traffic Volume Growth	0	0	0	4	7	3	0	23	1	2	26	0
Hallandale Artsquare Committed												
Inbound Traffic Assignment	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Inbound Traffic Volumes	0	0	0	0	2	0	0	0	0	0	0	0
Outbound Traffic Assignment	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Traffic Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Total Hallandale Artsquare	0	0	0	0	2	0	0	0	0	0	0	0
2020 Background Traffic	0	0	0	143	285	128	0	940	43	68	1,055	0
Project Traffic					11%			42%				
Inbound Traffic Assignment	0%	0%	0%	11%	0%	0%	0%	42%	0%	0%	0%	0%
Inbound Traffic Volumes	0	0	0	10	0	0	0	37	0	0	0	0
Outbound Traffic Assignment	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	42%	0%
Outbound Traffic Volumes	0	0	0	0	0	0	0	0	0	2	66	0
Project Traffic	0	0	0	10	0	0	0	37	0	2	66	0
TOTAL TRAFFIC	0	0	0	153	285	128	0	977	43	70	1,121	0

VOLUME DEVELOPMENT SHEET
NE 3rd Street & US 1/N Federal Highway

Growth Rate = 0.50%
 Peak Season = 1.02 1.02
 Buildout Year = 2020 2020
 Years = 5 5

<u>AM Peak Hour</u>												
	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 4/23/2015	53	813	9	28	1,111	48	69	72	67	28	54	10
Peak Season Volume	54	829	9	29	1,133	49	70	73	68	29	55	10
Traffic Volume Growth	1	21	0	1	29	1	2	2	2	1	1	0
Hallandale Artsquare Committed												
Inbound Traffic Assignment	25%											
Inbound Traffic Volumes	17	0	0	0	0	10%	0	0	0	0	0	0
Outbound Traffic Assignment							20%					
Outbound Traffic Volumes	0	0	0	0	25	40%	0	20%	25	0	0	0
Total Hallandale Artsquare	17	0	0	0	25	49	0	25	0	0	0	0
2020 Background Traffic	72	850	9	30	1,187	57	121	75	95	30	56	10
Project Traffic												
Inbound Traffic Assignment		23.0%										
Inbound Traffic Volumes	0	11	0	0	0	0	0	0	0	0	0	0
Outbound Traffic Assignment						23.0%						
Outbound Traffic Volumes	0	0	0	0	2	0	0	0	0	0	0	0
Project Traffic	0	11	0	0	2	0	0	0	0	0	0	0
TOTAL TRAFFIC	72	861	9	30	1,189	57	121	75	95	30	56	10
<u>PM Peak Hour</u>												
	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 4/23/2015	118	1,301	13	34	1,014	51	80	99	76	29	93	74
Peak Season Volume	120	1,327	13	35	1,034	52	82	101	78	30	95	75
Traffic Volume Growth	3	34	0	1	26	1	2	3	2	1	2	2
Hallandale Artsquare Committed												
Inbound Traffic Assignment	25%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%
Inbound Traffic Volumes	41	0	0	0	0	16	0	0	0	0	0	0
Outbound Traffic Assignment	0%	0%	0%	0%	20%	0%	40%	0%	20%	0%	0%	0%
Outbound Traffic Volumes	0	0	0	0	27	0	54	0	27	0	0	0
Total Hallandale Artsquare	41	0	0	0	27	16	54	0	27	0	0	0
2020 Background Traffic	164	1,361	13	36	1,087	69	138	104	107	31	97	77
Project Traffic												
Inbound Traffic Assignment	0%	23%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Traffic Volumes	0	20	0	0	0	0	0	0	0	0	0	0
Outbound Traffic Assignment	0%	0%	0%	0%	23%	0%	0%	0%	0%	0%	0%	0%
Outbound Traffic Volumes	0	0	0	0	36	0	0	0	0	0	0	0
Project Traffic	0	20	0	0	36	0	0	0	0	0	0	0
TOTAL TRAFFIC	164	1,381	13	36	1,123	69	138	104	107	31	97	77

VOLUME DEVELOPMENT SHEET
Atlantic Shores Blvd & US 1/N Federal Highway

Growth Rate = 0.50%
 Peak Season = 1.02 1.02
 Buildout Year = 2020 2020
 Years = 5 5

<u>AM Peak Hour</u>												
	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 4/23/2015	12	817	78	120	1,138	6	1	2	9	130	10	232
Peak Season Volume	12	833	80	122	1,161	6	1	2	9	133	10	237
Traffic Volume Growth	0	21	2	3	29	0	0	0	0	3	0	6
Hallandale Artsquare Committed												
Inbound Traffic Assignment												
Inbound Traffic Volumes												
Outbound Traffic Assignment												
Outbound Traffic Volumes												
Total Hallandale Artsquare	0	0	0	0	27	0	0	0	0	0	0	0
2020 Background Traffic	12	854	82	125	1,217	6	1	2	9	136	10	243
Project Traffic												
Inbound Traffic Assignment	23.0%											
Inbound Traffic Volumes	11	0	0	0	0	32	0	0	0	0	4	0
Outbound Traffic Assignment							69.0%	8.0%	23.0%			
Outbound Traffic Volumes	0	0	0	0	0	0	6	1	2	0	0	0
Project Traffic	11	0	0	0	0	32	6	1	2	0	4	0
TOTAL TRAFFIC	23	854	82	125	1,217	38	7	3	11	136	14	243
<u>PM Peak Hour</u>												
	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 4/23/2015	30	1,320	120	166	1,038	16	5	27	57	117	26	239
Peak Season Volume	31	1,346	122	169	1,059	16	5	28	58	119	27	244
Traffic Volume Growth	1	34	3	4	27	0	0	1	1	3	1	6
Hallandale Artsquare Committed												
Inbound Traffic Assignment	0%	0%	0%	0%	40%	0%	0%	0%	0%	0%	0%	0%
Inbound Traffic Volumes	0	0	0	0	65	0	0	0	0	0	0	0
Outbound Traffic Assignment	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outbound Traffic Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Total Hallandale Artsquare	0	0	0	0	65	0	0	0	0	0	0	0
2020 Background Traffic	32	1,380	125	173	1,151	16	5	29	59	122	28	250
Project Traffic												
Inbound Traffic Assignment	23%	0%	0%	0%	0%	69%	0%	0%	0%	0%	8%	0%
Inbound Traffic Volumes	20	0	0	0	0	60	0	0	0	0	7	0
Outbound Traffic Assignment	0%	0%	0%	0%	0%	0%	69%	8%	23%	0%	0%	0%
Outbound Traffic Volumes	0	0	0	0	0	0	109	13	36	0	0	0
Project Traffic	20	0	0	0	0	60	109	13	36	0	7	0
TOTAL TRAFFIC	52	1,380	125	173	1,151	76	114	42	95	122	35	250

APPENDIX F: SIGNAL TIMING WORKSHEETS



BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	3166		Initial Operation Date	9/9/77									
Controller Type	2070 LN		System Number	3166									
Modification Number	11		Modification Date	12/19/2012									
Drawing/Project No	228034-1-52-01		FPL Grid Number	87670309605									
Intersection	FEDERAL HWY. (US 1/SR 5) and PEMBROKE ROAD (SR 824)												
Municipality	HALLANDALE BEACH												
Controller Phase	1	2	3	4	5	6	7	8					
Face Number	1	2		4	5,4R	6	7,6R	8					
Direction	SBL	NB		EB	NBL	SB	EBL	WB					
Initial Green(MIN)	5	10		6	5	10	4	6					
Vehicle Ext.(GAP)	1.5	3.0		2.0	1.5	3.0	1.5	2.0					
Maximum Green I	18	50		20	20	50	20	20					
Maximum Green II													
Yellow Clearance	4.0	4.0		4.0	4.0	4.0	4.0	4.0					
All Red Clearance	2.0	2.0		2.0	2.0	2.0	2.0	2.0					
Phase Recall	OFF	MIN		OFF	OFF	MIN	OFF	OFF					
Detector Delay													
Walk		7		5		7		5					
Pedestrian Clearance		26		28		26		28					
Permissive	NO			DUAL		5 SECT							
Flash Operation	RED	YELLOW		RED	RED	YELLOW		RED					
Green Return													

Attachment

Channel/Drop / IP Address

NOTES:

1. DUAL ENTRY HARDWIRED EAST/WEST.
2. EBR HARDWIRED TO NBL PHASE 5, SBR HARDWIRED TO EBL PHASE 7.
3. MOD. 11 DEPLOYS SIGNAL ONTO ATMS.NOW.

Submitted By _____ Approved By _____

Broward County

Timing Sheet

11/10/2015 7:20:58 AM

Station : 3166 - US 1 & Pembroke Rd (Standard File)

Phase	1 (SL)	2 (NT)	3	4 (ET)	5 (NL)	6 (ST)	7 (EL)	8 (WT)	9	10	11	12	13	14	15	16
Walk		7		5		7		5								
Ped Clearance		26		28		26		28								
Min Green	5	10	5	6	5	10	4	6								
Gap Ext	1.5	3	1	2	1.5	3	1.5	2								
Max1	18	50	15	20	20	50	20	20								
Max2																
Yellow Clr	4	4	4	4	4	4	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON		ON	ON	ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call	ON				ON				ON							
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable									ON							
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																
Concurrent Ps	1	1	1	1	2	2	2	2								

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash				ON		
Override Higher Preempt				ON		
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6	6		6	6
Min Walk						
Ped Clear						
Track Green						
Min Dwell	8	8	8		8	8
Max Presence	180	180	180		180	180
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2	4	1		2	4
Dwell Cyc Veh 2	6	8	6		5	7
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell Cyc Ped7						
Dwell Cyc Ped8						
Exit 1	4	1	2		2	4
Exit 2	8	5	6		6	8
Exit 3						
Exit 4						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Prepared By

Date Implemented

Reviewed By

Traffic Engineer

Broward County

Timing Sheet

11/10/2015 7:20:58 AM

Station : 3166 - US 1 & Pembroke Rd (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	Seqne	Short	Long	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16	
Day Plan 1																										
6		2	2	160	37	2	1	10	50	28	73		59	28	73	19	40									
9		3	3	160	83	3	1	10	50	22	76		62	22	76	20	42									
15		4	4	160	111	4	1	10	50	28	73		59	28	73	19	40									
20		3	3	160	83	3	1	10	50	22	76		62	22	76	20	42									
Day Plan 2																										
1		3	3	160	83	3	1	10	50	22	76		62	22	76	20	42									
6	30	100	254																							
Day Plan 3																										
1		3	3	160	83	3	1	10	50	22	76		62	22	76	20	42									
6	30	100	254																							
23		3	3	160	83	3	1	10	50	22	76		62	22	76	20	42									

Broward County

Timing Sheet

11/10/2015 7:20:58 AM

Station : 3166 - US 1 & Pembroke Rd (Standard File)

Hour	Action	Pattern	Offset	Cycle	Split	Seqc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4										Easy															

Scheduler

Plan	Month												Day of Week			Day of Month			1			2			3			Day Plan				
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	
4	1												1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
5	1												1																		2	
6													1																		2	
7													1						1												2	
8													1	1	1	1	1	1	1	1											2	
9													1						1												2	
10													1						1	1	1	1	1	1	1	1	1	1	1	1	2	
11													1						1												2	
12													1																		2	
13													1	1																	2	
14													1	1	1	1	1	1												2		
15													1	1																	2	
16													1	1																	2	
17													1																		1	
18																																1
19																																1
20																																1
21																																1
22																																1
23																																1
24																																1
25																																1
26																																1
27																																1
28																																1
29																																1
30																																1
31																																1
32																																1

User Comments:

TRAFFIC ENGINEERING DIVISION

SIGNALIZED INTERSECTION

LOCATION FEDERAL HWY (US 1) & PEMBROKE RD/MOFFET ST

ORDER NO FDOT ISSUE DATE --- REVISION NO. 2 COMPLETION DATE 8/3/04

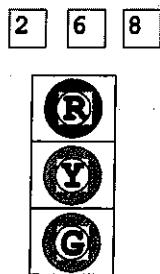
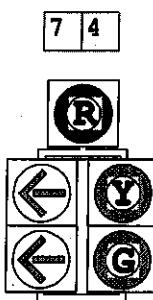
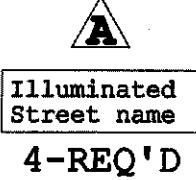
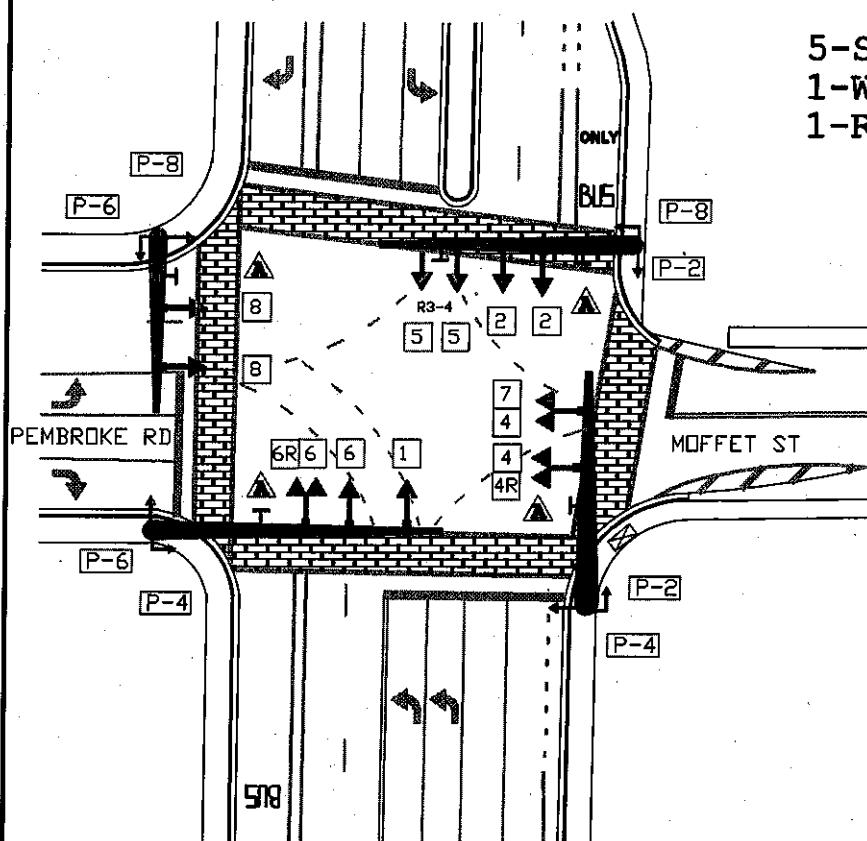
DWG. NO. 04-11-01-01 FILE NO. C-166 CITY HALLANDALE BCH SCALE: 1" = 50'

DWN BY: LARRY

NORTH



FEDERAL HIGHWAY



5-SECT
1-WAY
1-REQ'D

3-SECT
1-WAY
5-REQ'D

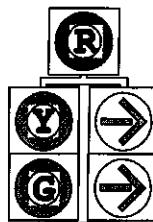
P-2 P-4 P-6 P-8



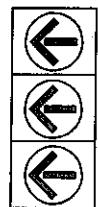
1-SECT
1-WAY
8-REQ'D

4 4R

6 6R



1 5



3-SECT
1-WAY
3-REQ'D

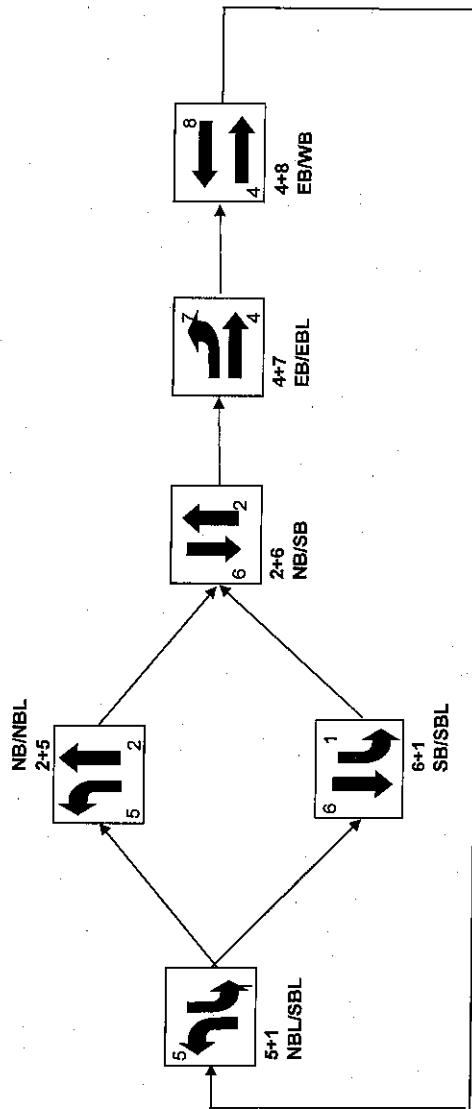
5-SECT
1-WAY
2-REQ'D

1. VIDEO DETECTION

2. REBUILT UNDER FDOT PROJ. NO. 228034-1-52-01

3. NB R3-4 ADDED 12/4, FDOT JPA

Sequence of Operation for (C-166) FEDERAL HWY. (US 1/SR 5) and PEMBROKE ROAD (SR 824)



NOTE: EBR HARDWIRED TO NBL PHASE 5, SBR HARDWIRED TO EBL PHASE 7.



BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	3167		Initial Operation Date	UNKNOWN							
Controller Type	2070		System Number								
Modification Number	16		Modification Date	07/25/2014							
Drawing/Project No	86018-3500		FPL Grid Number	87570899404							
Intersection	PEMBROKE ROAD (SR 824) and DIXIE HWY/NE 1 AVE.										
Municipality	HALLANDALE BEACH										
Controller Phase	1	2	3	4	5	6	7				
Face Number							9				
Direction	WBST	WB	NB	EBST	EB	SB	P/E				
Initial Green(MIN)	2	7	5	2	7	5	9				
Vehicle Ext.(GAP)	0.0	3.0	2.5	0.0	3.0	2.5	0.0				
Maximum Green I	2	26	18	2	35	18	9				
Maximum Green II											
Yellow Clearance	4.0	4.0	4.0	4.0	4.0	4.5	4.0				
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0					
Phase Recall	OFF	OFF	OFF	OFF	MIN	OFF	OFF				
Detector Delay											
Walk		7	5		7	5					
Pedestrian Clearance		9	13		10	13					
Permissive											
Flash Operation		YELLOW	RED		YELLOW	RED					
Green Return											

Attachment

Channel/Drop / IP Address

NOTES:

1. DIODE STRAPPING: PHASE 2 CALL:PHASE 1 DETECT, PHASE 5 CALL:PHASE 4 DETECT.
2. NO VEHICLE DETECTION EXTENSION [PHASE 1 & 4].
3. RAILROAD PREEMPTION (UTILIZING PHASE 9):
 - (A) TIME BEFORE: 0 SECONDS
 - (B) TRACK CLEAR: 5 GREEN, 4 YELLOW, 1 ALL RED EB AND WB FAR SIDE SIGNALS.
 - (C) ACTIVE PHASES: 3 (NB) AND 6 (SB).
 - (D) RETURN TO PHASE 4 (EASTBOUND START)
4. MOD. 16 UPDATES YELLOW AND RED CLEARANCES PER FDOT STANDARDS.

Submitted By _____ Approved By _____

Broward County

Timing Sheet

11/10/2015 7:21:19 AM

Station : 3167 - Pembroke Rd & Dixie Hwy (Standard File)

Phase	1 (WL)	2 (WT)	3 (NT)	4 (EL)	5 (ET)	6 (ST)	7	8	9	10	11	12	13	14	15	16
Walk	7	5			7	5										
Ped Clearance		9	13		10	13										
Min Green	2	7	5	2	7	5			9							
Gap Ext		3	2.5		3	2.5										
Max1	2	26	18	2	35	18			9							
Max2																
Yellow Clr	4	4	4	4	4	4.5	4	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2				1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON			ON							
Auto Flash Entry			ON													
Auto Flash Exit				ON												
Non-Actuated 1																
Non-Actuated 2										ON						
Lock Call										ON						
Min Recall					ON											
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry																
Sim Cap Enable										ON						
Guar Passage																
Rest In Walk					ON											
Cond Service																
Add Init Calc																
Concurrent Ps	1	1	1	1	1	1	1	1								

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON	ON	ON	ON	ON
Override Higher Preempt	ON	ON	ON	ON	ON	ON
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	1					
Min Walk						
Ped Clear						
Track Green	5					
Min Dwell	5					
Max Presence						
Track Veh 1	9					
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	10					
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1	4					
Exit 2						
Exit 3						
Exit 4						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Cord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Prepared By _____

Date Implemented _____

Reviewed By

Traffic Engineer

Broward County

Timing Sheet

11/10/2015 7:21:19 AM

Station : 3167 - Pembroke Rd & Dixie Hwy (Standard File)

Coordination

Hour	Action	Pattern	Cycle	Offset	Split	Seqne	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16		
Minute																											
Day Plan 1																Easy											
6		2	2	160	49	2	1		20	8	40	30	8	42	32												
9		3	3	160	104	3	1		20	8	40	32	8	42	30												
15		4	4	160	140	4	1		20	8	42	30	8	43	29												
20		3	3	160	104	3	1		20	8	40	32	8	42	30												
Day Plan 2																Easy											
1		3	3	160	104	3	1		20	8	40	32	8	42	30												
		100	254																								
6	30	3	3	160	104	3	1		20	8	40	32	8	42	30												
Day Plan 3																Easy											
1		3	3	160	104	3	1		20	8	40	32	8	42	30												
		100	254																								
6	30	3	3	160	104	3	1		20	8	40	32	8	42	30												
23		100	254																								

Broward County

Timing Sheet

11/10/2015 7:21:19 AM

Station : 3167 - Pembroke Rd & Dixie Hwy (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Seqnc	Split	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4												Easy														

Scheduler

Plan	Month					Day of Week					Day of Month					1			2			3			Day Plan							
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1																			2	
3	1	1	1	1	1	1	1	1	1	1	1	1																			3	
4	1																															2
5	1																															2
6		1																														2
7		1																														2
8		1																														2
9		1																														2
10			1																													2
11			1																													2
12			1																													2
13			1																													2
14			1																													2
15			1	1																												2
16			1	1																												2
17																																1
18																																1
19																																1
20																																1
21																																1
22																																1
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26																																1
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30																																1
31																																1
32																																1

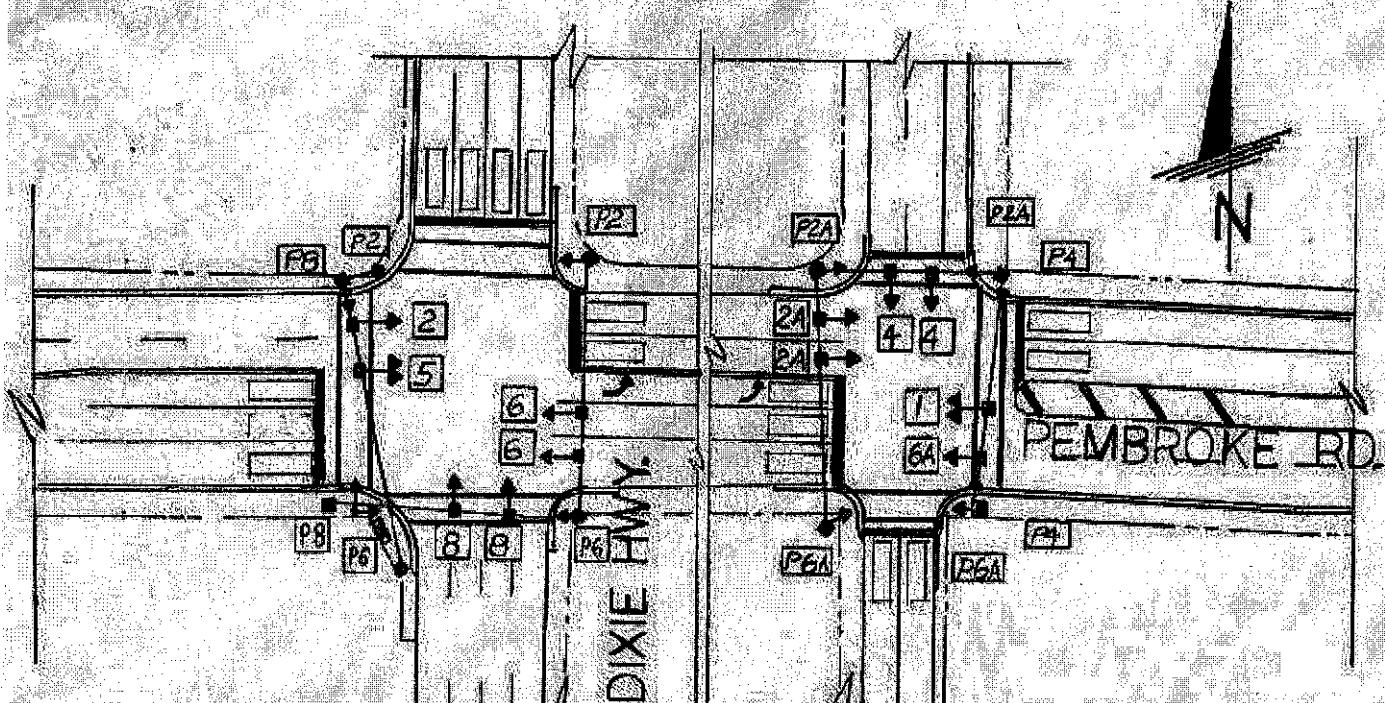
User Comments:

BROWARD COUNTY TRAFFIC ENGINEERING DIVISION
TRAFFIC SIGNAL INSTALLATION ORDER

LOCATION PEMBROKE RD. AND DIXIE HWY.

ORDER NO. F-DOT ISSUE DATE: REVISION NO. 2 COMPLETION DATE: 7-11-93

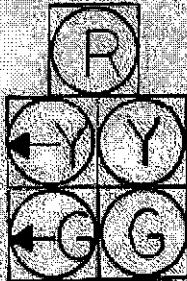
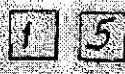
DWG NO. 381 FILE NO. C-167 CITY: HALLANDALE SCALE: 1"- 50'



SIGNAL HEAD DETAIL



3-SEC
1-WAY
10-REQ'D



5-SEC
1-WAY
2-REQ'D

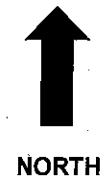


2-SEC.
1-WAY
11-REQ'D

REMARKS:

Sequence of Operation
 PEMBROKE ROAD AND DIXIE HIGHWAY / NE 1 AVENUE, C-167

NORMAL OPERATION		
WEST side	Phase	EAST side
↓	Phase 1 WB ST	↔
↔	Phase 2 WB	↔
↔	Phase 3 NB	↑
↔	Phase 4 EB ST	↑
↔	Phase 5 EB	↔
↓	Phase 6 SB	↔



PREEMPTION		
	TRACK CLEARANCE	
↔		↔
↓	DWELL	↑
↔	AFTER PREEMPTION RETURN TO PHASE 2	↔



BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	3121	Initial Operation Date	9/9/77
Controller Type	2070 LN	System Number	3121
Modification Number	13	Modification Date	04/06/2015
Drawing/Project No	228034-1-52-01	FPL Grid Number	87670308200
Intersection	FEDERAL HWY. (US 1/SR 5) and NE 9 STREET (ATL. SHORES)		
Municipality	HALLANDALE BEACH		

Controller Phase	1	2	3	4	5	6
Face Number	1,8R	2	3,8	4,7	5,4R	6
Direction	SBL	NB	WB	EB	NBL	SB
Initial Green(MIN)	4	10	6	6	4	10
Vehicle Ext.(GAP)	1.5	3.0	2.0	2.0	1.5	3.0
Maximum Green I	18	50	25	30	18	50
Maximum Green II						
Yellow Clearance	4.0	4.0	4.0	4.0	4.0	4.0
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN
Detector Delay		20RT	20RT			
Walk	7	5	5		7	
Pedestrian Clearance	22	28	28		22	
Permissive	DUAL			DUAL		
Flash Operation	RED	YELLOW	RED	RED	RED	YELLOW
Green Return						

Attachment

Channel/Drop / IP Address

NOTES:

1. WBR HARDWIRED TO SBL PHASE 1, EBR HARDWIRED TO NBL PHASE 5.
2. MOD. 13 UPDATES ALL RED CLEARANCE VALUES.

Broward County

Timing Sheet

11/10/2015 7:20:26 AM

Station : 3121 - US 1 & NE 9 St (Standard File)

Phase	1 (SL)	2 (NT)	3 (WT)	4 (ET)	5 (NL)	6 (ST)	7	8	9	10	11	12	13	14	15	16
Walk	7	5	5		7											
Ped Clearance		22	28	28		22										
Min Green	4	10	6	6	4	10										
Gap Ext	1.5	3	2	2	1.5	3										
Max1	18	50	25	30	18	50										
Max2																
Yellow Clr	4	4	4	4	4	4			3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2			1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON										
Auto Flash Entry					ON											
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON							
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry																
Sim Gap Enable									ON							
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																
Concurrent Ps	1	1	1	1	2	2	2	2								

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash		ON		ON		
Override Higher Preempt		ON		ON		
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6	6	6	6	6
Min Walk						
Ped Clear						
Track Green						
Min Dwell	8	8	8	8	8	8
Max Presence	180	180	180	180	180	180
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2	1	3	2	4	
Dwell Cyc Veh 2	6	6		5		
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1	3	2	1	2	1	
Exit 2		6	5	6	5	
Exit 3						
Exit 4						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Prepared By

Date Implemented

Reviewed By

Traffic Engineer

Broward County

Timing Sheet

11/10/2015 7:20:26 AM

Station : 3121 - US 1 & NE 9 St (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	Seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1																										
			100	254																						
6		2	2	160	59	2	1	10	50		20	60	40	40	20	60		80								
9		3	3	160	76	3	1	10	50		18	58	42	42	18	58		84								
15		4	4	160	84	4	1	10	50		20	60	40	40	20	60		80								
20		3	3	160	76	3	1	10	50		18	58	42	42	18	58		84								
Day Plan 2																										
			3	3	160	76	3	1	10	50		18	58	42	42	18	58		84							
1		100	254																							
6	30	3	3	160	76	3	1	10	50		18	58	42	42	18	58		84								
Day Plan 3																										
			3	3	160	76	3	1	10	50		18	58	42	42	18	58		84							
1		100	254																							
6	30	3	3	160	76	3	1	10	50		18	58	42	42	18	58		84								
23		100	254																							

TRAFFIC ENGINEERING DIVISION

SIGNALIZED INTERSECTION

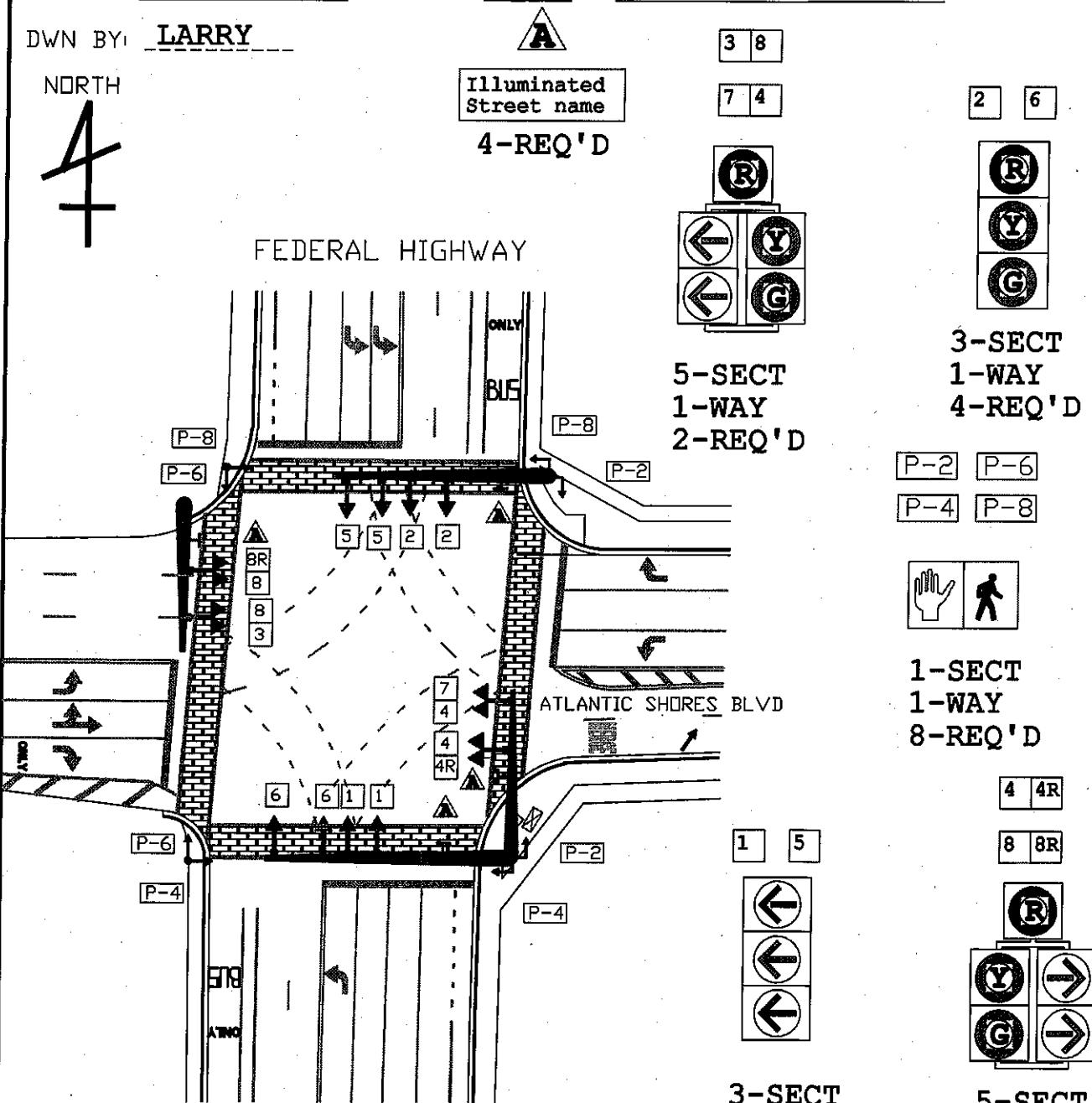
LOCATION **FEDERAL HWY (US 1) & ATLANTIC SHORES**

ORDER NO **FDOT** ISSUE DATE **---** REVISION NO. **4** COMPLETION DATE **8/4/04**

DWG. NO. **04-10-08-01** FILE NO. **C-121** CITY **HALLANDALE** SCALE: **1" = 50'**

DWN BY: **LARRY**

NORTH



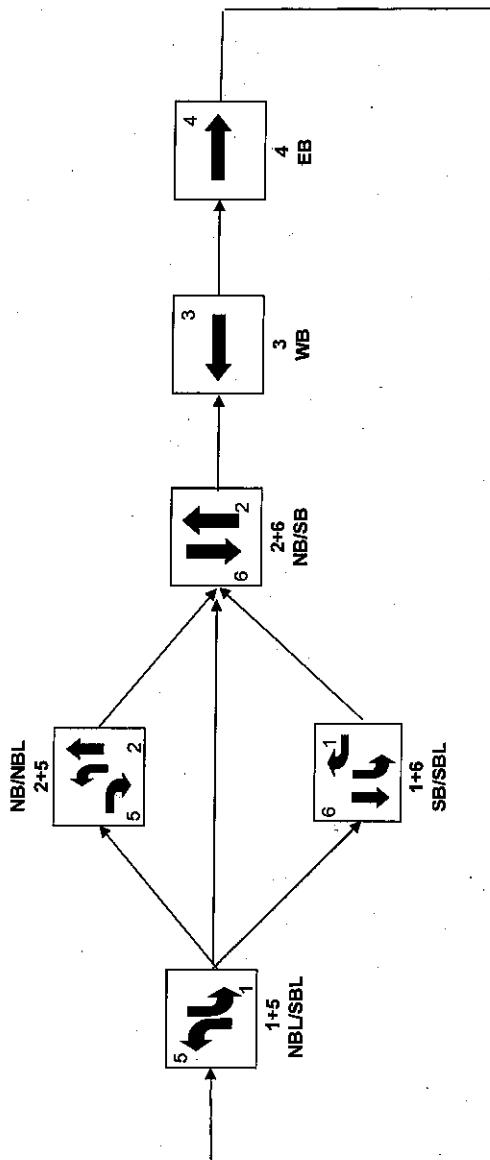
1. VIDEO DETECTION

2. REBUILT UNDER FDOT PROJ. NO. 228034-1-52-01

5-SECT
1-WAY
2-REQ'D

Sequence of Operation for (3121) Federal Hwy (US 1/SR 5) and NE 8 Street (Atl Shores)

Hallandale Beach



WB/HARDWIRED TO SBL PHASE 1, EBR HARDWIRED TO NBL PHASE 5.



BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	3223	Initial Operation Date	UNKNOWN
Controller Type	2070 LN	System Number	3223
Modification Number	11	Modification Date	04/02/2015
Drawing/Project No	228034-1-52-01	FPL Grid Number	87670294306
Intersection	FEDERAL HWY. (US 1/SR 5) and NE 3 STREET (HALLANDALE)		
Municipality	HALLANDALE BEACH		
Controller Phase	1	2	3
	3	4	5
	6	7	8
Face Number	2	4	6
Direction	NB	EB	SB
			WB
Initial Green(MIN)	10	6	10
Vehicle Ext.(GAP)	3.0	2.0	3.0
Maximum Green I	50	20	50
Maximum Green II			20
Yellow Clearance	4.0	4.0	4.0
All Red Clearance	2.0	2.0	2.0
Phase Recall	MIN	OFF	MIN
Detector Delay		10RT	10RT
Walk	7	5	7
Pedestrian Clearance	11	20	11
Permissive			20
Flash Operation	YELLOW	RED	YELLOW
Green Return			RED

Attachment

Channel/Drop / IP Address

NOTES:

1. DUAL ENTRY HARDWIRED EAST/WEST.
2. MOD. 11 UPDATES PHASE 2 & 6 ALL RED CLEARANCE VALUES.

Submitted By _____

Approved By _____

Broward County

Timing Sheet

11/10/2015 7:21:34 AM

Station : 3223 - US 1 & NE 3 St (Standard File)

Phase	1	2 (NT)	3	4 (ET)	5	6 (ST)	7	8 (WT)	9	10	11	12	13	14	15	16
Walk	7		5		7		5									
Ped Clearance	11		20		11		20									
Min Green	10		6		10		6									
Gap Ext	3		2		3		2									
Max1	50		20		50		20									
Max2																
Yellow Clr	4		4		4		4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2		2		2		2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON		ON		ON		ON									
Auto Flash Entry		ON						ON								
Auto Flash Exit	ON				ON											
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON							
Min Recall	ON						ON									
Max Recall	ON						ON									
Ped Recall																
Soft Recall																
Dual Entry			ON					ON								
Sin Gap Enable									ON							
Guar Passage																
Rest In Walk	ON					ON										
Cond Service																
Add Init Calc																
Concurrent Ps	1	1	1	1	2	2	2	2								

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash			'ON			
Override Higher Preempt			ON			
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6		6		6
Min Walk						6
Ped Clear						
Track Green						
Min Dwell	8	8		6		15
Max Presence	180	180		180	180	180
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	2	4		2	2	1
Dwell Cyc Veh 2	5	8		5	5	6
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1	4	2		2	1	2
Exit 2	8	6		6	6	6
Exit 3						
Exit 4						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Prepared By

Date Implemented

Reviewed By

Traffic Engineer

Broward County

Timing Sheet

11/10/2015 7:21:34 AM

Station : 3223 - US 1 & NE 3 St (Standard File)

Coordination

Hour	Action	Pattern	Cycle	Offset	Split	Seqne	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16	
Day Plan 1																										
		100	254																							
6		2	2	160	134	2	1	10	50		125	35	125	35												
9		3	3	160	153	3	1	10	50		120	40	120	40												
15		4	4	160	5	4	1	10	50		125	35	125	35												
20		3	3	160	153	3	1	10	50		120	40	120	40												
Day Plan 2																										
		3	3	160	153	3	1	10	50		120	40	120	40												
1		100	254																							
6		30	3	3	160	153	3	1	10	50		120	40	120	40											
Day Plan 3																										
		3	3	160	153	3	1	10	50		120	40	120	40												
1		100	254																							
6		30	3	3	160	153	3	1	10	50		120	40	120	40											
23		100	254																							

Broward County

Timing Sheet

11/10/2015 7:21:34 AM

Station : 3223 - US 1 & NE 3 St (Standard File)

Hour	Pattern	Cycle	Offset	Split	Seqne	Dwell	Short	Long	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16	
Day Plan 4									Easy																

Scheduler

Plan	Month												Day of Week			Day of Month			1			2			3			Day Plan					
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	F	S	1	2	3	4	5	6	7	8	9	0	1				
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	2	
3	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1												1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2		
5	1												1																		2		
6													1																		2		
7													1																		2		
8													1	1	1	1	1	1												2			
9													1																		2		
10													1						1	1	1	1	1	1	1	1	1	1	1	2			
11													1						1	1	1	1	1	1	1	1	1	1	1	2			
12													1							1	1	1	1	1	1	1	1	1	1	2			
13													1	1							1									2			
14													1	1	1	1	1	1											2				
15													1	1								1								2			
16													1	1								1								1			
17													1									1									1		
18																																1	
19																																1	
20																																1	
21																																1	
22																																1	
23																																1	
24																																1	
25																																1	
26																																1	
27																																1	
28																																1	
29																																1	
30																																1	
31																																1	
32																																1	

User Comments:

TRAFFIC ENGINEERING DIVISION SIGNALIZED INTERSECTION

LOCATION FEDERAL HWY (US 1) & NE 3 STREET

ORDER NO FDOT ISSUE DATE --- REVISION NO. 2 COMPLETION DATE 8/14/04

DWG. NO. 04-09-01-01 FILE NO. C-223 CITY Hallandale SCALE: 1" = 50'

DWN BY: LARRY

NORTH

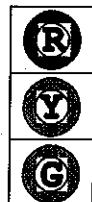


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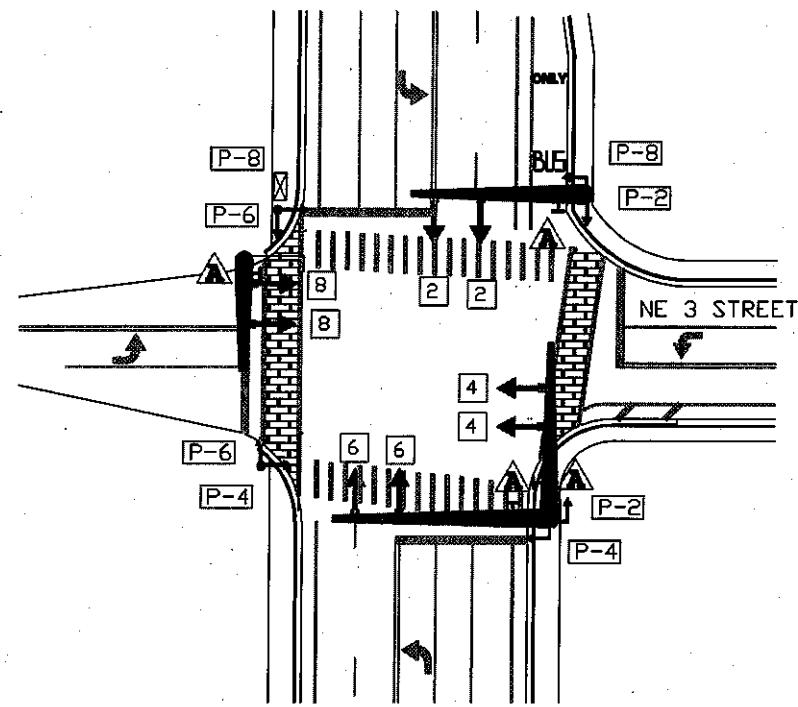
2 4 6 8

Illuminated
Street name

4-REQ'D



FEDERAL HIGHWAY



P-4 P-6
P-6 P-8



1-SECT
2-WAY
2-REQ'D

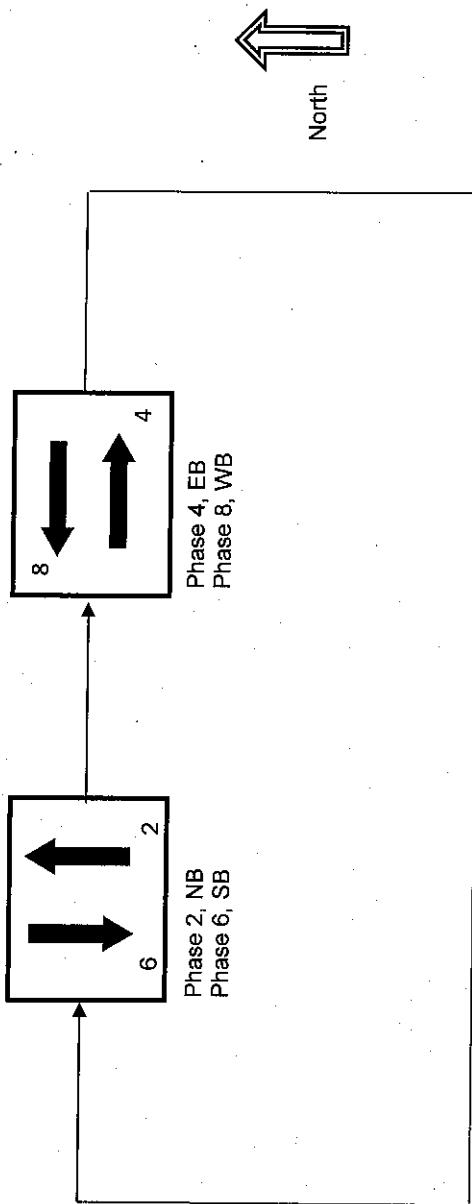
P-2 P-4 P-8



1-SECT
1-WAY
4-REQ'D

1. VIDEO DETECTION
2. REBUILT UNDER FDOT PROJ NO 228034-1-52-01

Sequence of Operation
Federal Hwy (US 1/SR 5) and NE 3 Street
Intersection Number (3223) Hallandale Beach



APPENDIX G: INTERSECTION ANALYSES

HCM Signalized Intersection Capacity Analysis

3: Federal (US 1) & Pembroke Road

AM Existing

11/10/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑		↔		↑↑	↑↑		↑	↑↑	↑
Traffic Volume (vph)	102	246	461	20	251	9	286	761	7	36	844	115
Future Volume (vph)	102	246	461	20	251	9	286	761	7	36	844	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		1.00		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583		1848		3433	3534		1770	3539	1583
Flt Permitted	0.20	1.00	1.00		0.96		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	376	1863	1583		1780		3433	3534		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	111	267	501	22	273	10	311	827	8	39	917	125
RTOR Reduction (vph)	0	0	226	0	1	0	0	0	0	0	0	57
Lane Group Flow (vph)	111	267	275	0	304	0	311	835	0	39	917	68
Turn Type	pm+pt	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)	48.7	48.7	48.7		31.2		19.5	90.0		7.8	78.3	78.3
Effective Green, g (s)	48.7	48.7	48.7		31.2		19.5	90.0		7.8	78.3	78.3
Actuated g/C Ratio	0.30	0.30	0.30		0.19		0.12	0.56		0.05	0.49	0.49
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	227	567	481		347		418	1987		86	1731	774
v/s Ratio Prot	0.04	0.14				c0.09	0.24			0.02	c0.26	
v/s Ratio Perm	0.11		c0.17		c0.17							0.04
v/c Ratio	0.49	0.47	0.57		0.88		0.74	0.42		0.45	0.53	0.09
Uniform Delay, d1	44.0	45.2	46.9		62.5		67.8	20.0		74.0	28.2	21.8
Progression Factor	1.96	1.88	3.60		1.00		0.94	0.60		1.00	1.00	1.00
Incremental Delay, d2	1.5	0.6	1.5		21.1		6.5	0.6		3.8	1.2	0.2
Delay (s)	87.7	85.5	170.1		83.7		70.2	12.6		77.8	29.3	22.0
Level of Service	F	F	F		F		E	B		E	C	C
Approach Delay (s)		134.0			83.7			28.2			30.2	
Approach LOS		F			F		C				C	

Intersection Summary

HCM 2000 Control Delay	61.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: NE 1st Avenue & Pembroke Road

AM Existing

11/10/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	119	1008	0	0	876	23	80	124	37	0	0	0
Future Volume (vph)	119	1008	0	0	876	23	80	124	37	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.95				
Frt	1.00	1.00			1.00			0.98				
Flt Protected	0.95	1.00			1.00			0.98				
Satd. Flow (prot)	1770	3539			3526			3402				
Flt Permitted	0.95	1.00			1.00			0.98				
Satd. Flow (perm)	1770	3539			3526			3402				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	129	1096	0	0	952	25	87	135	40	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	9	0	0	0	0
Lane Group Flow (vph)	129	1096	0	0	976	0	0	253	0	0	0	0
Turn Type	Prot	NA			NA		Split	NA				
Protected Phases	13	5 13			5		7	7				
Permitted Phases												
Actuated Green, G (s)	69.5	117.5			43.5			33.5				
Effective Green, g (s)	69.5	117.5			43.5			33.5				
Actuated g/C Ratio	0.43	0.73			0.27			0.21				
Clearance Time (s)	4.5				4.5			4.5				
Vehicle Extension (s)	3.0				3.0			3.0				
Lane Grp Cap (vph)	768	2598			958			712				
v/s Ratio Prot	0.07	c0.31			c0.28			c0.07				
v/s Ratio Perm												
v/c Ratio	0.17	0.42			1.02			0.35				
Uniform Delay, d1	27.6	8.2			58.2			54.0				
Progression Factor	0.14	1.23			0.54			1.00				
Incremental Delay, d2	0.4	0.4			32.5			1.4				
Delay (s)	4.3	10.4			63.8			55.4				
Level of Service	A	B			E			E				
Approach Delay (s)		9.8			63.8			55.4		0.0		
Approach LOS		A			E			E		A		
Intersection Summary												
HCM 2000 Control Delay			36.1		HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio			0.65									
Actuated Cycle Length (s)			160.0		Sum of lost time (s)			27.0				
Intersection Capacity Utilization			49.7%		ICU Level of Service			A				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

9: Dixie Highway & Pembroke Road

AM Existing

11/10/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↓			↑↓					↑	↑↑↓	
Traffic Volume (vph)	0	913	53	68	856	0	0	0	0	131	405	115
Future Volume (vph)	0	913	53	68	856	0	0	0	0	131	405	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5					4.5	4.5	
Lane Util. Factor		0.91				0.95				0.86	0.86	
Frt		0.99				1.00				1.00	0.97	
Flt Protected		1.00				1.00				0.95	1.00	
Satd. Flow (prot)			5043			3526				1522	4645	
Flt Permitted			1.00			0.53				0.95	1.00	
Satd. Flow (perm)			5043			1879				1522	4645	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	992	58	74	930	0	0	0	0	142	440	125
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	0	0	28	0
Lane Group Flow (vph)	0	1046	0	0	1004	0	0	0	0	128	551	0
Turn Type		NA		custom		NA				Perm	NA	
Protected Phases		4 9				2 3 4 9					1 10	
Permitted Phases				2 3						1 10		
Actuated Green, G (s)		46.6				113.2				37.8	37.8	
Effective Green, g (s)		46.6				113.2				37.8	37.8	
Actuated g/C Ratio		0.29				0.71				0.24	0.24	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)		1468			1329					359	1097	
v/s Ratio Prot		0.21										
v/s Ratio Perm				c0.53						0.08	0.12	
v/c Ratio		0.71			1.19dl					0.36	0.50	
Uniform Delay, d1		50.7			14.7					51.0	52.9	
Progression Factor		1.00			1.65					1.00	1.00	
Incremental Delay, d2		1.7			0.8					0.6	0.4	
Delay (s)		52.4			25.1					51.6	53.3	
Level of Service		D			C					D	D	
Approach Delay (s)		52.4			25.1			0.0			53.0	
Approach LOS		D			C			A			D	
Intersection Summary												
HCM 2000 Control Delay		42.6			HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio		0.79										
Actuated Cycle Length (s)		160.0			Sum of lost time (s)			27.0				
Intersection Capacity Utilization		65.5%			ICU Level of Service			C				
Analysis Period (min)		15										
dl	Defacto Left Lane. Recode with 1 though lane as a left lane.											
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis
12: NE 3rd Street & Federal (US 1)

AM Existing
11/10/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑↑		↑	↑↑	
Traffic Volume (vph)	70	73	68	29	55	10	54	829	9	29	1133	49
Future Volume (vph)	70	73	68	29	55	10	54	829	9	29	1133	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.93		1.00	0.98		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1728		1770	1819		1770	3533		1770	3517	
Flt Permitted	0.65	1.00		0.33	1.00		0.20	1.00		0.30	1.00	
Satd. Flow (perm)	1220	1728		607	1819		367	3533		561	3517	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	79	74	32	60	11	59	901	10	32	1232	53
RTOR Reduction (vph)	0	23	0	0	4	0	0	0	0	0	1	0
Lane Group Flow (vph)	76	130	0	32	67	0	59	911	0	32	1284	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	17.3	17.3		17.3	17.3		133.7	133.7		133.7	133.7	
Effective Green, g (s)	17.3	17.3		17.3	17.3		133.7	133.7		133.7	133.7	
Actuated g/C Ratio	0.11	0.11		0.11	0.11		0.84	0.84		0.84	0.84	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	131	186		65	196		306	2952		468	2938	
v/s Ratio Prot		c0.08			0.04			0.26			c0.36	
v/s Ratio Perm	0.06			0.05			0.16			0.06		
v/c Ratio	0.58	0.70		0.49	0.34		0.19	0.31		0.07	0.44	
Uniform Delay, d1	67.9	68.8		67.2	66.1		2.6	2.9		2.3	3.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.74	0.88	
Incremental Delay, d2	6.4	10.8		5.8	1.0		1.4	0.3		0.3	0.4	
Delay (s)	74.3	79.7		73.0	67.1		4.0	3.2		1.9	3.4	
Level of Service	E	E		E	E		A	A		A	A	
Approach Delay (s)		77.9			68.9			3.2			3.4	
Approach LOS		E			E			A			A	
Intersection Summary												
HCM 2000 Control Delay			12.4				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.47									
Actuated Cycle Length (s)			160.0				Sum of lost time (s)			9.0		
Intersection Capacity Utilization			64.2%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
15: Federal (US 1) & Atlantic Shores Boulevard

AM Existing
11/10/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	1	2	9	133	10	237	12	833	80	122	1161	6
Future Volume (vph)	1	2	9	133	10	237	12	833	80	122	1161	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	0.97	0.95	0.97	0.95	0.97	0.95
Frt	1.00	0.90	0.85	1.00	1.00	0.85	1.00	0.99	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1593	1504	1770	1863	1583	3433	3493	3433	3433	3536	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1593	1504	1770	1863	1583	3433	3493	3433	3433	3536	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	2	10	145	11	258	13	905	87	133	1262	7
RTOR Reduction (vph)	0	4	6	0	0	228	0	2	0	0	0	0
Lane Group Flow (vph)	1	2	0	145	11	30	13	990	0	133	1269	0
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Prot	NA		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	2.7	2.7	2.7	18.8	18.8	18.8	2.7	109.0		11.5	117.8	
Effective Green, g (s)	2.7	2.7	2.7	18.8	18.8	18.8	2.7	109.0		11.5	117.8	
Actuated g/C Ratio	0.02	0.02	0.02	0.12	0.12	0.12	0.02	0.68		0.07	0.74	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	29	26	25	207	218	186	57	2379		246	2603	
v/s Ratio Prot	0.00	c0.00		c0.08	0.01		0.00	0.28		c0.04	c0.36	
v/s Ratio Perm			0.00			0.02						
v/c Ratio	0.03	0.08	0.00	0.70	0.05	0.16	0.23	0.42		0.54	0.49	
Uniform Delay, d1	77.4	77.4	77.3	67.9	62.7	63.5	77.6	11.3		71.7	8.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.88		0.90	0.73	
Incremental Delay, d2	0.5	1.3	0.1	10.2	0.1	0.4	2.0	0.5		2.0	0.5	
Delay (s)	77.9	78.7	77.4	78.1	62.8	63.9	77.5	10.5		66.3	6.9	
Level of Service	E	E	E	E	E	E	E	B		E	A	
Approach Delay (s)		78.0			68.9			11.4			12.5	
Approach LOS		E			E			B			B	
Intersection Summary												
HCM 2000 Control Delay				20.6			HCM 2000 Level of Service		C			
HCM 2000 Volume to Capacity ratio				0.52								
Actuated Cycle Length (s)				160.0			Sum of lost time (s)		18.0			
Intersection Capacity Utilization				61.7%			ICU Level of Service		B			
Analysis Period (min)				15								
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
3: Federal (US 1) & Pembroke Road

AM Future Background

11/10/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑				↑↑	↑↑		↑	↑↑	↑
Traffic Volume (vph)	105	252	473	21	257	9	293	780	7	37	892	118
Future Volume (vph)	105	252	473	21	257	9	293	780	7	37	892	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5				4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00				0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85				1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00				0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583				3433	3534		1770	3539	1583
Flt Permitted	0.20	1.00	1.00				0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	375	1863	1583				3433	3534		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	274	514	23	279	10	318	848	8	40	970	128
RTOR Reduction (vph)	0	0	220	0	1	0	0	0	0	0	0	56
Lane Group Flow (vph)	114	274	294	0	311	0	318	856	0	40	970	72
Turn Type	pm+pt	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)	49.3	49.3	49.3		31.7		19.7	89.3		7.9	77.5	77.5
Effective Green, g (s)	49.3	49.3	49.3		31.7		19.7	89.3		7.9	77.5	77.5
Actuated g/C Ratio	0.31	0.31	0.31		0.20		0.12	0.56		0.05	0.48	0.48
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	229	574	487		352		422	1972		87	1714	766
v/s Ratio Prot	0.04	0.15				c0.09	0.24		0.02	c0.27		
v/s Ratio Perm	0.11		c0.19		c0.18							0.05
v/c Ratio	0.50	0.48	0.60		0.88		0.75	0.43		0.46	0.57	0.09
Uniform Delay, d1	43.7	44.9	47.0		62.4		67.8	20.6		74.0	29.3	22.3
Progression Factor	1.96	1.88	3.34		1.00		0.96	0.61		1.00	1.00	1.00
Incremental Delay, d2	1.6	0.6	1.9		22.1		6.9	0.6		3.8	1.4	0.2
Delay (s)	87.2	84.8	159.0		84.5		72.2	13.1		77.8	30.7	22.5
Level of Service	F	F	F		F		E	B		E	C	C
Approach Delay (s)		127.4			84.5			29.1			31.4	
Approach LOS		F			F		C				C	

Intersection Summary

HCM 2000 Control Delay	59.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	80.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
6: NE 1st Avenue & Pembroke Road

AM Future Background

11/10/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑			↑↑			↔↔				
Traffic Volume (vph)	122	1033	0	0	898	24	82	128	38	0	0	0
Future Volume (vph)	122	1033	0	0	898	24	82	128	38	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.95				
Frt	1.00	1.00			1.00			0.98				
Flt Protected	0.95	1.00			1.00			0.98				
Satd. Flow (prot)	1770	3539			3525			3402				
Flt Permitted	0.95	1.00			1.00			0.98				
Satd. Flow (perm)	1770	3539			3525			3402				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	133	1123	0	0	976	26	89	139	41	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	9	0	0	0	0
Lane Group Flow (vph)	133	1123	0	0	1001	0	0	260	0	0	0	0
Turn Type	Prot	NA			NA		Split	NA				
Protected Phases	13	5 13			5		7	7				
Permitted Phases												
Actuated Green, G (s)	69.5	117.5			43.5			33.5				
Effective Green, g (s)	69.5	117.5			43.5			33.5				
Actuated g/C Ratio	0.43	0.73			0.27			0.21				
Clearance Time (s)	4.5				4.5			4.5				
Vehicle Extension (s)	3.0				3.0			3.0				
Lane Grp Cap (vph)	768	2598			958			712				
v/s Ratio Prot	0.08	c0.32			c0.28			c0.08				
v/s Ratio Perm												
v/c Ratio	0.17	0.43			1.04			0.36				
Uniform Delay, d1	27.7	8.3			58.2			54.1				
Progression Factor	0.13	1.15			0.54			1.00				
Incremental Delay, d2	0.4	0.4			40.1			1.4				
Delay (s)	4.1	10.0			71.5			55.6				
Level of Service	A	A			E			E				
Approach Delay (s)		9.3			71.5			55.6		0.0		
Approach LOS		A			E			E		A		
Intersection Summary												
HCM 2000 Control Delay		38.9			HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio		0.67										
Actuated Cycle Length (s)		160.0			Sum of lost time (s)			27.0				
Intersection Capacity Utilization		50.7%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
9: Dixie Highway & Pembroke Road

AM Future Background

11/10/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↓			↑↓					↓	↑↑↓	
Traffic Volume (vph)	0	936	54	70	878	0	0	0	0	134	416	118
Future Volume (vph)	0	936	54	70	878	0	0	0	0	134	416	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5					4.5	4.5	
Lane Util. Factor		0.91				0.95				0.86	0.86	
Frt		0.99				1.00				1.00	0.97	
Flt Protected		1.00				1.00				0.95	1.00	
Satd. Flow (prot)			5043			3526				1522	4645	
Flt Permitted			1.00			0.52				0.95	1.00	
Satd. Flow (perm)			5043			1858				1522	4645	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1017	59	76	954	0	0	0	0	146	452	128
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	0	0	28	0
Lane Group Flow (vph)	0	1072	0	0	1030	0	0	0	0	131	567	0
Turn Type		NA		custom		NA				Perm	NA	
Protected Phases		4 9				2 3 4 9					1 10	
Permitted Phases				2 3						1 10		
Actuated Green, G (s)		46.4				113.9				37.1	37.1	
Effective Green, g (s)		46.4				113.9				37.1	37.1	
Actuated g/C Ratio		0.29				0.71				0.23	0.23	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)		1462			1322					352	1077	
v/s Ratio Prot		0.21										
v/s Ratio Perm				c0.55						0.09	0.12	
v/c Ratio		0.73			1.38dl					0.37	0.53	
Uniform Delay, d1		51.2			14.9					51.7	53.8	
Progression Factor		1.00			1.70					1.00	1.00	
Incremental Delay, d2		1.9			0.8					0.7	0.5	
Delay (s)		53.2			26.2					52.3	54.2	
Level of Service		D			C					D	D	
Approach Delay (s)		53.2			26.2			0.0			53.9	
Approach LOS		D			C			A			D	
Intersection Summary												
HCM 2000 Control Delay		43.5			HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio		0.81										
Actuated Cycle Length (s)		160.0			Sum of lost time (s)			27.0				
Intersection Capacity Utilization		66.9%			ICU Level of Service			C				
Analysis Period (min)		15										
dl	Defacto Left Lane. Recode with 1 though lane as a left lane.											
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis
12: NE 3rd Street & Federal (US 1)

AM Future Background

11/10/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↘		↑ ↗	↑ ↘		↑ ↗	↑ ↘		↑ ↗	↑ ↘	
Traffic Volume (vph)	121	75	95	30	56	10	72	850	9	30	1187	57
Future Volume (vph)	121	75	95	30	56	10	72	850	9	30	1187	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	0.98		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1707		1770	1820		1770	3534		1770	3515	
Flt Permitted	0.67	1.00		0.31	1.00		0.18	1.00		0.29	1.00	
Satd. Flow (perm)	1246	1707		573	1820		330	3534		539	3515	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	132	82	103	33	61	11	78	924	10	33	1290	62
RTOR Reduction (vph)	0	30	0	0	4	0	0	0	0	0	2	0
Lane Group Flow (vph)	132	155	0	33	68	0	78	934	0	33	1350	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	21.8	21.8		21.8	21.8		129.2	129.2		129.2	129.2	
Effective Green, g (s)	21.8	21.8		21.8	21.8		129.2	129.2		129.2	129.2	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.81	0.81		0.81	0.81	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	169	232		78	247		266	2853		435	2838	
v/s Ratio Prot		0.09			0.04			0.26			c0.38	
v/s Ratio Perm	c0.11			0.06			0.24			0.06		
v/c Ratio	0.78	0.67		0.42	0.27		0.29	0.33		0.08	0.48	
Uniform Delay, d1	66.8	65.7		63.3	62.0		3.9	4.0		3.2	4.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.66	0.90	
Incremental Delay, d2	20.5	7.1		3.7	0.6		2.8	0.3		0.3	0.5	
Delay (s)	87.3	72.7		67.0	62.6		6.7	4.3		2.4	4.8	
Level of Service	F	E		E	E		A	A		A	A	
Approach Delay (s)		78.8			64.0			4.5			4.8	
Approach LOS		E			E			A			A	

Intersection Summary

HCM 2000 Control Delay	15.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	67.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
15: Federal (US 1) & Atlantic Shores Boulevard

AM Future Background

11/10/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	1	2	9	136	10	243	12	854	82	125	1217	6
Future Volume (vph)	1	2	9	136	10	243	12	854	82	125	1217	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	0.97	0.95	0.97	0.95	0.95	0.95
Frt	1.00	0.90	0.85	1.00	1.00	0.85	1.00	0.99	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1593	1504	1770	1863	1583	3433	3493	3433	3433	3536	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1593	1504	1770	1863	1583	3433	3493	3433	3433	3536	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	2	10	148	11	264	13	928	89	136	1323	7
RTOR Reduction (vph)	0	4	6	0	0	232	0	2	0	0	0	0
Lane Group Flow (vph)	1	2	0	148	11	32	13	1015	0	136	1330	0
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Prot	NA		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	2.7	2.7	2.7	19.1	19.1	19.1	2.7	108.5		11.7	117.5	
Effective Green, g (s)	2.7	2.7	2.7	19.1	19.1	19.1	2.7	108.5		11.7	117.5	
Actuated g/C Ratio	0.02	0.02	0.02	0.12	0.12	0.12	0.02	0.68		0.07	0.73	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	29	26	25	211	222	188	57	2368		251	2596	
v/s Ratio Prot	0.00	c0.00		c0.08	0.01		0.00	0.29		c0.04	c0.38	
v/s Ratio Perm			0.00			0.02						
v/c Ratio	0.03	0.08	0.00	0.70	0.05	0.17	0.23	0.43		0.54	0.51	
Uniform Delay, d1	77.4	77.4	77.3	67.7	62.4	63.3	77.6	11.7		71.6	9.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	1.00		0.90	0.77	
Incremental Delay, d2	0.5	1.3	0.1	10.1	0.1	0.4	1.9	0.5		1.9	0.6	
Delay (s)	77.9	78.7	77.4	77.8	62.5	63.7	77.6	12.3		66.1	7.5	
Level of Service	E	E	E	E	E	E	E	B		E	A	
Approach Delay (s)		78.0			68.6			13.1			12.9	
Approach LOS		E			E			B			B	
Intersection Summary												
HCM 2000 Control Delay				21.3			HCM 2000 Level of Service		C			
HCM 2000 Volume to Capacity ratio				0.54								
Actuated Cycle Length (s)				160.0			Sum of lost time (s)		18.0			
Intersection Capacity Utilization				63.4%			ICU Level of Service		B			
Analysis Period (min)				15								
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

PM Future Total

2/26/2016

3: Federal (US 1) & Pembroke Road

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑				↑↑	↑↑		↑	↑↑	↑
Traffic Volume (vph)	168	284	498	6	210	32	519	1205	10	66	959	113
Future Volume (vph)	168	284	498	6	210	32	519	1205	10	66	959	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		0.98		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583		1828		3433	3535		1770	3539	1583
Flt Permitted	0.18	1.00	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	341	1863	1583		1809		3433	3535		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	183	309	541	7	228	35	564	1310	11	72	1042	123
RTOR Reduction (vph)	0	0	218	0	3	0	0	0	0	0	0	56
Lane Group Flow (vph)	183	309	323	0	267	0	564	1321	0	72	1042	67
Turn Type	pm+pt	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)	47.3	47.3	47.3		28.4		30.8	87.3		11.9	68.4	68.4
Effective Green, g (s)	47.3	47.3	47.3		28.4		30.8	87.3		11.9	68.4	68.4
Actuated g/C Ratio	0.30	0.30	0.30		0.18		0.19	0.55		0.07	0.43	0.43
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	229	550	467		321		660	1928		131	1512	676
v/s Ratio Prot	c0.07	0.17				c0.16	c0.37			0.04	0.29	
v/s Ratio Perm	c0.16		0.20		0.15							0.04
v/c Ratio	0.80	0.56	0.69		0.83		0.85	0.68		0.55	0.69	0.10
Uniform Delay, d1	46.7	47.6	49.9		63.5		62.4	26.4		71.5	37.2	27.4
Progression Factor	2.01	1.90	3.14		1.00		1.22	0.45		1.00	1.00	1.00
Incremental Delay, d2	16.1	1.2	4.0		16.5		7.4	1.4		4.7	2.6	0.3
Delay (s)	109.9	91.5	160.7		80.0		83.3	13.2		76.1	39.8	27.7
Level of Service	F	F	F		E		F	B		E	D	C
Approach Delay (s)		131.0			80.0			34.2			40.7	
Approach LOS		F			E		C				D	

Intersection Summary

HCM 2000 Control Delay	61.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: NE 1st Avenue & Pembroke Road

PM Future Total

2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	116	1030	0	0	976	38	242	281	40	0	0	0
Future Volume (vph)	116	1030	0	0	976	38	242	281	40	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.95				
Frt	1.00	1.00			0.99			0.99				
Flt Protected	0.95	1.00			1.00			0.98				
Satd. Flow (prot)	1770	3539			3519			3428				
Flt Permitted	0.95	1.00			1.00			0.98				
Satd. Flow (perm)	1770	3539			3519			3428				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	126	1120	0	0	1061	41	263	305	43	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	3	0	0	0	0
Lane Group Flow (vph)	126	1120	0	0	1101	0	0	608	0	0	0	0
Turn Type	Prot	NA			NA		Split	NA				
Protected Phases	13	5	13			5		7	7			
Permitted Phases												
Actuated Green, G (s)	67.5	117.5			45.5			33.5				
Effective Green, g (s)	67.5	117.5			45.5			33.5				
Actuated g/C Ratio	0.42	0.73			0.28			0.21				
Clearance Time (s)	4.5				4.5			4.5				
Vehicle Extension (s)	3.0				3.0			3.0				
Lane Grp Cap (vph)	746	2598			1000			717				
v/s Ratio Prot	0.07	c0.32			c0.31			c0.18				
v/s Ratio Perm												
v/c Ratio	0.17	0.43			1.10			0.85				
Uniform Delay, d1	28.8	8.3			57.2			60.8				
Progression Factor	0.06	0.91			0.38			1.00				
Incremental Delay, d2	0.3	0.4			57.7			11.9				
Delay (s)	2.1	7.9			79.8			72.7				
Level of Service	A	A			E			E				
Approach Delay (s)		7.3			79.8			72.7			0.0	
Approach LOS		A			E			E			A	
Intersection Summary												
HCM 2000 Control Delay		47.8			HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio		0.81										
Actuated Cycle Length (s)		160.0			Sum of lost time (s)			27.0				
Intersection Capacity Utilization		61.9%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
9: Dixie Highway & Pembroke Road

PM Future Total

2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↓			↑↓					↓	↑↑↓	
Traffic Volume (vph)	0	977	43	70	1121	0	0	0	0	153	285	128
Future Volume (vph)	0	977	43	70	1121	0	0	0	0	153	285	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5					4.5	4.5	
Lane Util. Factor		0.91				0.95				0.86	0.86	
Frt		0.99				1.00				1.00	0.96	
Flt Protected		1.00				1.00				0.95	1.00	
Satd. Flow (prot)		5053				3529				1522	4582	
Flt Permitted		1.00				0.53				0.95	1.00	
Satd. Flow (perm)		5053				1860				1522	4582	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1062	47	76	1218	0	0	0	0	166	310	139
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	0	0	48	0
Lane Group Flow (vph)	0	1106	0	0	1294	0	0	0	0	149	418	0
Turn Type	NA		custom		NA					Perm	NA	
Protected Phases	4 9				2 3 4 9						1 10	
Permitted Phases				2 3						1 10		
Actuated Green, G (s)	46.5				118.5					32.5	32.5	
Effective Green, g (s)	46.5				118.5					32.5	32.5	
Actuated g/C Ratio	0.29				0.74					0.20	0.20	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	1468				1377					309	930	
v/s Ratio Prot	0.22											
v/s Ratio Perm					c0.70					c0.10	0.09	
v/c Ratio	0.75				1.49dl					0.48	0.45	
Uniform Delay, d1	51.5				17.7					56.3	55.9	
Progression Factor	1.00				1.64					1.00	1.00	
Incremental Delay, d2	2.2				1.5					1.2	0.3	
Delay (s)	53.8				30.5					57.5	56.3	
Level of Service	D				C					E	E	
Approach Delay (s)	53.8				30.5			0.0			56.6	
Approach LOS	D				C			A			E	
Intersection Summary												
HCM 2000 Control Delay	44.4				HCM 2000 Level of Service					D		
HCM 2000 Volume to Capacity ratio	0.95											
Actuated Cycle Length (s)	160.0				Sum of lost time (s)					27.0		
Intersection Capacity Utilization	72.7%				ICU Level of Service					C		
Analysis Period (min)				15								
dl	Defacto Left Lane. Recode with 1 though lane as a left lane.											
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis
12: NE 3rd Street & Federal (US 1)

PM Future Total

2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑↑		↑	↑↑	
Traffic Volume (vph)	138	104	107	31	97	77	164	1381	13	36	1123	69
Future Volume (vph)	138	104	107	31	97	77	164	1381	13	36	1123	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	0.93		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1721		1770	1739		1770	3534		1770	3508	
Flt Permitted	0.41	1.00		0.33	1.00		0.18	1.00		0.13	1.00	
Satd. Flow (perm)	772	1721		606	1739		332	3534		247	3508	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	150	113	116	34	105	84	178	1501	14	39	1221	75
RTOR Reduction (vph)	0	23	0	0	18	0	0	0	0	0	3	0
Lane Group Flow (vph)	150	206	0	34	171	0	178	1515	0	39	1293	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	30.5	30.5		30.5	30.5		120.5	120.5		120.5	120.5	
Effective Green, g (s)	30.5	30.5		30.5	30.5		120.5	120.5		120.5	120.5	
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.75	0.75		0.75	0.75	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	147	328		115	331		250	2661		186	2641	
v/s Ratio Prot		0.12			0.10			0.43			0.37	
v/s Ratio Perm	c0.19			0.06			c0.54			0.16		
v/c Ratio	1.02	0.63		0.30	0.52		0.71	0.57		0.21	0.49	
Uniform Delay, d1	64.8	59.5		55.5	58.1		10.5	8.5		5.8	7.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.40	0.62	
Incremental Delay, d2	79.7	3.7		1.4	1.4		15.9	0.9		2.2	0.6	
Delay (s)	144.5	63.2		57.0	59.5		26.4	9.4		4.5	5.3	
Level of Service	F	E		E	E		C	A		A	A	
Approach Delay (s)	95.4				59.1			11.2			5.3	
Approach LOS		F			E			B			A	
Intersection Summary												
HCM 2000 Control Delay				20.8			HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio				0.77								
Actuated Cycle Length (s)				160.0			Sum of lost time (s)			9.0		
Intersection Capacity Utilization				75.2%			ICU Level of Service			D		
Analysis Period (min)				15								
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
15: Federal (US 1) & Atlantic Shores Boulevard

PM Future Total

2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	114	42	95	122	35	250	52	1380	125	173	1151	76
Future Volume (vph)	114	42	95	122	35	250	52	1380	125	173	1151	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	0.97	0.95	0.97	0.95	0.97	0.95
Frt	1.00	0.94	0.85	1.00	1.00	0.85	1.00	0.99	1.00	0.99	1.00	0.99
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1661	1504	1770	1863	1583	3433	3495	3433	3495	3433	3506
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1661	1504	1770	1863	1583	3433	3495	3433	3495	3433	3506
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	124	46	103	133	38	272	57	1500	136	188	1251	83
RTOR Reduction (vph)	0	18	64	0	0	242	0	2	0	0	2	0
Lane Group Flow (vph)	124	60	7	133	38	30	57	1634	0	188	1332	0
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Prot	NA		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	16.6	16.6	16.6	17.9	17.9	17.9	6.9	93.4		14.1	100.6	
Effective Green, g (s)	16.6	16.6	16.6	17.9	17.9	17.9	6.9	93.4		14.1	100.6	
Actuated g/C Ratio	0.10	0.10	0.10	0.11	0.11	0.11	0.04	0.58		0.09	0.63	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	183	172	156	198	208	177	148	2040		302	2204	
v/s Ratio Prot	c0.07	0.04		c0.08	0.02		0.02	c0.47		c0.05	0.38	
v/s Ratio Perm			0.00			0.02						
v/c Ratio	0.68	0.35	0.05	0.67	0.18	0.17	0.39	0.80		0.62	0.60	
Uniform Delay, d1	69.1	66.7	64.6	68.2	64.4	64.3	74.5	26.0		70.4	17.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.93	1.35		0.88	0.78	
Incremental Delay, d2	9.5	1.2	0.1	8.6	0.4	0.5	1.3	2.7		2.8	0.9	
Delay (s)	78.7	67.9	64.7	76.9	64.8	64.8	70.5	37.8		64.5	14.7	
Level of Service	E	E	E	E	E	E	E	D		E	B	
Approach Delay (s)		72.0			68.4			38.9			20.8	
Approach LOS		E			E			D			C	
Intersection Summary												
HCM 2000 Control Delay				37.5			HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio				0.75								
Actuated Cycle Length (s)				160.0			Sum of lost time (s)			18.0		
Intersection Capacity Utilization				75.2%			ICU Level of Service			D		
Analysis Period (min)				15								
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Federal (US 1) & Pembroke Road

PM Existing

11/10/2015

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑				↑↑	↑↑		↑	↑↑	↑
Traffic Volume (vph)	164	277	440	6	205	31	423	1154	10	64	860	110
Future Volume (vph)	164	277	440	6	205	31	423	1154	10	64	860	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		0.98		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583		1828		3433	3535		1770	3539	1583
Flt Permitted	0.19	1.00	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	346	1863	1583		1809		3433	3535		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	178	301	478	7	223	34	460	1254	11	70	935	120
RTOR Reduction (vph)	0	0	228	0	3	0	0	0	0	0	0	57
Lane Group Flow (vph)	178	301	250	0	261	0	460	1265	0	70	935	63
Turn Type	pm+pt	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)	46.8	46.8	46.8		28.0		25.2	88.0		11.7	74.5	74.5
Effective Green, g (s)	46.8	46.8	46.8		28.0		25.2	88.0		11.7	74.5	74.5
Actuated g/C Ratio	0.29	0.29	0.29		0.18		0.16	0.55		0.07	0.47	0.47
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	228	544	463		316		540	1944		129	1647	737
v/s Ratio Prot	c0.07	0.16				c0.13	c0.36			0.04	0.26	
v/s Ratio Perm	c0.16		0.16		0.14							0.04
v/c Ratio	0.78	0.55	0.54		0.82		0.85	0.65		0.54	0.57	0.09
Uniform Delay, d1	46.9	47.8	47.6		63.6		65.6	25.2		71.6	31.1	23.8
Progression Factor	2.03	1.92	4.05		1.00		1.12	0.40		1.00	1.00	1.00
Incremental Delay, d2	14.8	1.1	1.2		15.9		9.4	1.3		4.6	1.4	0.2
Delay (s)	109.9	92.7	193.8		79.5		82.9	11.5		76.2	32.5	24.0
Level of Service	F	F	F		E		F	B		E	C	C
Approach Delay (s)		146.4			79.5			30.5			34.3	
Approach LOS		F			E		C				C	
Intersection Summary												
HCM 2000 Control Delay			62.0		HCM 2000 Level of Service			E				
HCM 2000 Volume to Capacity ratio			0.75									
Actuated Cycle Length (s)			160.0		Sum of lost time (s)			18.0				
Intersection Capacity Utilization			79.0%		ICU Level of Service			D				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

6: NE 1st Avenue & Pembroke Road

PM Existing

11/10/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑			↑↑			↔↔				
Traffic Volume (vph)	113	960	0	0	886	20	236	273	38	0	0	0
Future Volume (vph)	113	960	0	0	886	20	236	273	38	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.95				
Frt	1.00	1.00			1.00			0.99				
Flt Protected	0.95	1.00			1.00			0.98				
Satd. Flow (prot)	1770	3539			3527			3429				
Flt Permitted	0.95	1.00			1.00			0.98				
Satd. Flow (perm)	1770	3539			3527			3429				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	123	1043	0	0	963	22	257	297	41	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	3	0	0	0	0
Lane Group Flow (vph)	123	1043	0	0	984	0	0	592	0	0	0	0
Turn Type	Prot	NA			NA		Split	NA				
Protected Phases	13	5	13			5		7	7			
Permitted Phases												
Actuated Green, G (s)	67.5	117.5			45.5			33.5				
Effective Green, g (s)	67.5	117.5			45.5			33.5				
Actuated g/C Ratio	0.42	0.73			0.28			0.21				
Clearance Time (s)	4.5				4.5			4.5				
Vehicle Extension (s)	3.0				3.0			3.0				
Lane Grp Cap (vph)	746	2598			1002			717				
v/s Ratio Prot	0.07	c0.29			c0.28			c0.17				
v/s Ratio Perm												
v/c Ratio	0.16	0.40			0.98			0.83				
Uniform Delay, d1	28.7	8.0			56.9			60.5				
Progression Factor	0.06	0.95			0.41			1.00				
Incremental Delay, d2	0.4	0.3			22.1			10.5				
Delay (s)	2.2	8.0			45.4			70.9				
Level of Service	A	A			D			E				
Approach Delay (s)		7.3			45.4			70.9		0.0		
Approach LOS		A			D			E		A		
Intersection Summary												
HCM 2000 Control Delay		34.8			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.75										
Actuated Cycle Length (s)		160.0			Sum of lost time (s)			27.0				
Intersection Capacity Utilization		58.3%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
9: Dixie Highway & Pembroke Road

PM Existing
11/10/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↓			↑↓					↓	↑↑↓	
Traffic Volume (vph)	0	917	42	66	1029	0	0	0	0	139	276	125
Future Volume (vph)	0	917	42	66	1029	0	0	0	0	139	276	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5					4.5	4.5	
Lane Util. Factor		0.91				0.95				0.86	0.86	
Frt		0.99				1.00				1.00	0.95	
Flt Protected		1.00				1.00				0.95	1.00	
Satd. Flow (prot)		5052				3529				1522	4581	
Flt Permitted		1.00				0.54				0.95	1.00	
Satd. Flow (perm)		5052				1913				1522	4581	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	997	46	72	1118	0	0	0	0	151	300	136
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	0	0	49	0
Lane Group Flow (vph)	0	1040	0	0	1190	0	0	0	0	136	402	0
Turn Type	NA		custom		NA					Perm	NA	
Protected Phases	4 9				2 3 4 9						1 10	
Permitted Phases				2 3						1 10		
Actuated Green, G (s)	47.5				118.5					32.5	32.5	
Effective Green, g (s)	47.5				118.5					32.5	32.5	
Actuated g/C Ratio	0.30				0.74					0.20	0.20	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	1499			1416						309	930	
v/s Ratio Prot	0.21											
v/s Ratio Perm				c0.62						c0.09	0.09	
v/c Ratio	0.69			1.11dl						0.44	0.43	
Uniform Delay, d1	49.8			14.3						55.8	55.7	
Progression Factor	1.00			1.63						1.00	1.00	
Incremental Delay, d2	1.4			1.6						1.0	0.3	
Delay (s)	51.2			24.9						56.8	56.0	
Level of Service	D			C						E	E	
Approach Delay (s)	51.2			24.9			0.0				56.2	
Approach LOS	D			C			A				E	
Intersection Summary												
HCM 2000 Control Delay	41.1			HCM 2000 Level of Service			D					
HCM 2000 Volume to Capacity ratio	0.86											
Actuated Cycle Length (s)	160.0			Sum of lost time (s)			27.0					
Intersection Capacity Utilization	68.5%			ICU Level of Service			C					
Analysis Period (min)	15											
dl	Defacto Left Lane. Recode with 1 though lane as a left lane.											
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

12: NE 3rd Street & Federal (US 1)

PM Existing

11/10/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑↑		↑	↑↑	
Traffic Volume (vph)	82	101	78	30	95	75	120	1327	13	35	1034	52
Future Volume (vph)	82	101	78	30	95	75	120	1327	13	35	1034	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.93		1.00	0.93		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1741		1770	1739		1770	3534		1770	3514	
Flt Permitted	0.30	1.00		0.27	1.00		0.22	1.00		0.16	1.00	
Satd. Flow (perm)	559	1741		501	1739		406	3534		291	3514	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	89	110	85	33	103	82	130	1442	14	38	1124	57
RTOR Reduction (vph)	0	18	0	0	19	0	0	0	0	0	2	0
Lane Group Flow (vph)	89	177	0	33	166	0	130	1456	0	38	1179	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	21.4	21.4		21.4	21.4		129.6	129.6		129.6	129.6	
Effective Green, g (s)	21.4	21.4		21.4	21.4		129.6	129.6		129.6	129.6	
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.81	0.81		0.81	0.81	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	74	232		67	232		328	2862		235	2846	
v/s Ratio Prot		0.10			0.10			c0.41			0.34	
v/s Ratio Perm	c0.16			0.07			0.32			0.13		
v/c Ratio	1.20	0.76		0.49	0.72		0.40	0.51		0.16	0.41	
Uniform Delay, d1	69.3	66.8		64.3	66.4		4.3	4.9		3.3	4.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.58	0.70	
Incremental Delay, d2	169.1	13.7		5.6	10.0		3.6	0.6		1.3	0.4	
Delay (s)	238.4	80.6		69.9	76.4		7.8	5.6		3.3	3.4	
Level of Service	F	F		E	E		A	A		A	A	
Approach Delay (s)		130.0			75.4			5.7			3.4	
Approach LOS		F			E			A			A	

Intersection Summary

HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
15: Federal (US 1) & Atlantic Shores Boulevard

PM Existing
11/10/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑↑	↑↑		↑↑	↑↑	
Traffic Volume (vph)	5	28	58	119	27	244	31	1346	122	169	1059	16
Future Volume (vph)	5	28	58	119	27	244	31	1346	122	169	1059	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	0.97	0.95		0.97	0.95	
Frt	1.00	0.94	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1667	1504	1770	1863	1583	3433	3495		3433	3531	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1667	1504	1770	1863	1583	3433	3495		3433	3531	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	30	63	129	29	265	34	1463	133	184	1151	17
RTOR Reduction (vph)	0	17	42	0	0	236	0	2	0	0	0	0
Lane Group Flow (vph)	5	32	2	129	29	29	34	1594	0	184	1168	0
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	7.5	7.5	7.5	17.4	17.4	17.4	5.9	103.2		13.9	111.2	
Effective Green, g (s)	7.5	7.5	7.5	17.4	17.4	17.4	5.9	103.2		13.9	111.2	
Actuated g/C Ratio	0.05	0.05	0.05	0.11	0.11	0.11	0.04	0.65		0.09	0.70	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	82	78	70	192	202	172	126	2254		298	2454	
v/s Ratio Prot	0.00	c0.02		c0.07	0.02		0.01	c0.46		c0.05	0.33	
v/s Ratio Perm			0.00			0.02						
v/c Ratio	0.06	0.41	0.03	0.67	0.14	0.17	0.27	0.71		0.62	0.48	
Uniform Delay, d1	72.9	74.1	72.8	68.6	64.6	64.7	75.0	18.5		70.5	11.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.94	1.12		0.84	0.79	
Incremental Delay, d2	0.3	3.5	0.2	8.9	0.3	0.5	1.0	1.6		3.1	0.5	
Delay (s)	73.2	77.6	72.9	77.5	64.9	65.2	71.1	22.4		62.6	9.3	
Level of Service	E	E	E	E	E	E	E	C		E	A	
Approach Delay (s)		75.3			68.9			23.5			16.6	
Approach LOS		E			E			C			B	
Intersection Summary												
HCM 2000 Control Delay				27.7			HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio				0.68								
Actuated Cycle Length (s)				160.0			Sum of lost time (s)			18.0		
Intersection Capacity Utilization				71.6%			ICU Level of Service			C		
Analysis Period (min)				15								
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
3: Federal (US 1) & Pembroke Road

PM Future Background

11/10/2015

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑				↑↑	↑↑		↑	↑↑	↑
Traffic Volume (vph)	168	284	451	6	210	32	434	1183	10	66	947	113
Future Volume (vph)	168	284	451	6	210	32	434	1183	10	66	947	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		0.98		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583		1828		3433	3535		1770	3539	1583
Flt Permitted	0.18	1.00	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	341	1863	1583		1809		3433	3535		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	183	309	490	7	228	35	472	1286	11	72	1029	123
RTOR Reduction (vph)	0	0	219	0	3	0	0	0	0	0	0	53
Lane Group Flow (vph)	183	309	271	0	267	0	472	1297	0	72	1029	70
Turn Type	pm+pt	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)	47.3	47.3	47.3		28.4		25.7	87.3		11.9	73.5	73.5
Effective Green, g (s)	47.3	47.3	47.3		28.4		25.7	87.3		11.9	73.5	73.5
Actuated g/C Ratio	0.30	0.30	0.30		0.18		0.16	0.55		0.07	0.46	0.46
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	229	550	467		321		551	1928		131	1625	727
v/s Ratio Prot	c0.07	0.17				c0.14	c0.37			0.04	0.29	
v/s Ratio Perm	c0.16		0.17		0.15							0.04
v/c Ratio	0.80	0.56	0.58		0.83		0.86	0.67		0.55	0.63	0.10
Uniform Delay, d1	46.7	47.6	47.9		63.5		65.4	26.1		71.5	33.0	24.5
Progression Factor	2.02	1.91	3.66		1.00		1.14	0.43		1.00	1.00	1.00
Incremental Delay, d2	16.2	1.2	1.7		16.5		9.3	1.4		4.7	1.9	0.3
Delay (s)	110.9	92.2	176.9		80.0		83.9	12.5		76.1	34.9	24.7
Level of Service	F	F	F		E		F	B		E	C	C
Approach Delay (s)		137.9			80.0			31.5			36.3	
Approach LOS		F			E		C				D	

Intersection Summary

HCM 2000 Control Delay	60.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
6: NE 1st Avenue & Pembroke Road

PM Future Background

11/10/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑			↑↑			↔↔				
Traffic Volume (vph)	116	984	0	0	908	21	242	281	39	0	0	0
Future Volume (vph)	116	984	0	0	908	21	242	281	39	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.95				
Frt	1.00	1.00			1.00			0.99				
Flt Protected	0.95	1.00			1.00			0.98				
Satd. Flow (prot)	1770	3539				3527			3429			
Flt Permitted	0.95	1.00			1.00			0.98				
Satd. Flow (perm)	1770	3539			3527			3429				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	126	1070	0	0	987	23	263	305	42	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	3	0	0	0	0
Lane Group Flow (vph)	126	1070	0	0	1009	0	0	607	0	0	0	0
Turn Type	Prot	NA			NA		Split	NA				
Protected Phases	13	5	13			5		7	7			
Permitted Phases												
Actuated Green, G (s)	67.5	117.5			45.5			33.5				
Effective Green, g (s)	67.5	117.5			45.5			33.5				
Actuated g/C Ratio	0.42	0.73			0.28			0.21				
Clearance Time (s)	4.5				4.5			4.5				
Vehicle Extension (s)	3.0				3.0			3.0				
Lane Grp Cap (vph)	746	2598			1002			717				
v/s Ratio Prot	0.07	c0.30			c0.29			c0.18				
v/s Ratio Perm												
v/c Ratio	0.17	0.41			1.01			0.85				
Uniform Delay, d1	28.8	8.1			57.2			60.8				
Progression Factor	0.06	0.89			0.41			1.00				
Incremental Delay, d2	0.4	0.4			27.7			11.8				
Delay (s)	2.1	7.6			51.3			72.6				
Level of Service	A	A			D			E				
Approach Delay (s)		7.0			51.3			72.6			0.0	
Approach LOS		A			D			E			A	
Intersection Summary												
HCM 2000 Control Delay		37.1			HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio		0.77										
Actuated Cycle Length (s)		160.0			Sum of lost time (s)			27.0				
Intersection Capacity Utilization		59.5%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
9: Dixie Highway & Pembroke Road

PM Future Background

11/10/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↓			↑↓					↑	↑↑↓	
Traffic Volume (vph)	0	940	43	68	1055	0	0	0	0	143	285	128
Future Volume (vph)	0	940	43	68	1055	0	0	0	0	143	285	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5					4.5	4.5	
Lane Util. Factor		0.91				0.95				0.86	0.86	
Frt		0.99				1.00				1.00	0.96	
Flt Protected		1.00				1.00				0.95	1.00	
Satd. Flow (prot)				5052			3529			1522	4583	
Flt Permitted				1.00			0.53			0.95	1.00	
Satd. Flow (perm)				5052			1883			1522	4583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	1022	47	74	1147	0	0	0	0	155	310	139
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	0	0	48	0
Lane Group Flow (vph)	0	1066	0	0	1221	0	0	0	0	139	417	0
Turn Type	NA		custom		NA					Perm	NA	
Protected Phases	4 9				2 3 4 9						1 10	
Permitted Phases				2 3						1 10		
Actuated Green, G (s)	46.5				118.5					32.5	32.5	
Effective Green, g (s)	46.5				118.5					32.5	32.5	
Actuated g/C Ratio	0.29				0.74					0.20	0.20	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	1468			1394						309	930	
v/s Ratio Prot	0.21											
v/s Ratio Perm				c0.65						c0.09	0.09	
v/c Ratio	0.73			1.30dl						0.45	0.45	
Uniform Delay, d1	51.0			15.3						55.9	55.9	
Progression Factor	1.00			1.63						1.00	1.00	
Incremental Delay, d2	1.8			2.0						1.0	0.3	
Delay (s)	52.8			27.0						57.0	56.2	
Level of Service	D			C						E	E	
Approach Delay (s)	52.8			27.0			0.0				56.4	
Approach LOS	D			C			A				E	
Intersection Summary												
HCM 2000 Control Delay	42.7			HCM 2000 Level of Service			D					
HCM 2000 Volume to Capacity ratio	0.89											
Actuated Cycle Length (s)	160.0			Sum of lost time (s)			27.0					
Intersection Capacity Utilization	70.0%			ICU Level of Service			C					
Analysis Period (min)	15											
dl	Defacto Left Lane. Recode with 1 though lane as a left lane.											
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis
12: NE 3rd Street & Federal (US 1)

PM Future Background

11/10/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑↑		↑	↑↑	
Traffic Volume (vph)	138	104	107	31	97	77	164	1361	13	36	1087	69
Future Volume (vph)	138	104	107	31	97	77	164	1361	13	36	1087	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	0.93		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1721		1770	1739		1770	3534		1770	3508	
Flt Permitted	0.41	1.00		0.33	1.00		0.19	1.00		0.14	1.00	
Satd. Flow (perm)	772	1721		606	1739		350	3534		255	3508	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	150	113	116	34	105	84	178	1479	14	39	1182	75
RTOR Reduction (vph)	0	23	0	0	18	0	0	0	0	0	3	0
Lane Group Flow (vph)	150	206	0	34	171	0	178	1493	0	39	1254	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	30.5	30.5		30.5	30.5		120.5	120.5		120.5	120.5	
Effective Green, g (s)	30.5	30.5		30.5	30.5		120.5	120.5		120.5	120.5	
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.75	0.75		0.75	0.75	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	147	328		115	331		263	2661		192	2641	
v/s Ratio Prot		0.12			0.10			0.42			0.36	
v/s Ratio Perm	c0.19			0.06			c0.51			0.15		
v/c Ratio	1.02	0.63		0.30	0.52		0.68	0.56		0.20	0.47	
Uniform Delay, d1	64.8	59.5		55.5	58.1		9.9	8.4		5.8	7.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.57	0.78	
Incremental Delay, d2	79.7	3.7		1.4	1.4		13.1	0.9		2.1	0.5	
Delay (s)	144.5	63.2		57.0	59.5		23.1	9.3		5.4	6.4	
Level of Service	F	E		E	E		C	A		A	A	
Approach Delay (s)		95.4			59.1			10.8			6.4	
Approach LOS		F			E			B			A	
Intersection Summary												
HCM 2000 Control Delay				21.2			HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio				0.74								
Actuated Cycle Length (s)				160.0			Sum of lost time (s)			9.0		
Intersection Capacity Utilization				74.7%			ICU Level of Service			D		
Analysis Period (min)				15								
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
15: Federal (US 1) & Atlantic Shores Boulevard

PM Future Background

11/10/2015

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	5	29	59	122	28	250	32	1380	125	173	1151	16
Future Volume (vph)	5	29	59	122	28	250	32	1380	125	173	1151	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	0.97	0.95	0.97	0.95	0.97	0.95
Frt	1.00	0.94	0.85	1.00	1.00	0.85	1.00	0.99	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1671	1504	1770	1863	1583	3433	3495	3433	3532	3433	3532
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1671	1504	1770	1863	1583	3433	3495	3433	3532	3433	3532
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	32	64	133	30	272	35	1500	136	188	1251	17
RTOR Reduction (vph)	0	16	43	0	0	242	0	2	0	0	0	0
Lane Group Flow (vph)	5	35	2	133	30	30	35	1634	0	188	1268	0
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Prot	NA		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	7.8	7.8	7.8	17.9	17.9	17.9	6.0	102.2		14.1	110.3	
Effective Green, g (s)	7.8	7.8	7.8	17.9	17.9	17.9	6.0	102.2		14.1	110.3	
Actuated g/C Ratio	0.05	0.05	0.05	0.11	0.11	0.11	0.04	0.64		0.09	0.69	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	86	81	73	198	208	177	128	2232		302	2434	
v/s Ratio Prot	0.00	c0.02		c0.08	0.02		0.01	c0.47		c0.05	0.36	
v/s Ratio Perm			0.00			0.02						
v/c Ratio	0.06	0.43	0.03	0.67	0.14	0.17	0.27	0.73		0.62	0.52	
Uniform Delay, d1	72.6	73.9	72.5	68.2	64.1	64.3	74.9	19.6		70.4	12.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.41		0.85	0.83	
Incremental Delay, d2	0.3	3.6	0.2	8.6	0.3	0.5	0.9	1.7		3.1	0.6	
Delay (s)	72.9	77.6	72.7	76.9	64.5	64.8	69.5	29.3		62.6	10.7	
Level of Service	E	E	E	E	E	E	E	C		E	B	
Approach Delay (s)		75.2			68.5			30.2			17.4	
Approach LOS		E			E			C			B	
Intersection Summary												
HCM 2000 Control Delay				30.9			HCM 2000 Level of Service		C			
HCM 2000 Volume to Capacity ratio				0.70								
Actuated Cycle Length (s)				160.0			Sum of lost time (s)		18.0			
Intersection Capacity Utilization				73.0%			ICU Level of Service		D			
Analysis Period (min)				15								
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

PM Future Total

2/26/2016

3: Federal (US 1) & Pembroke Road

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑				↑↑	↑↑		↑	↑↑	↑
Traffic Volume (vph)	168	284	498	6	210	32	519	1205	10	66	959	113
Future Volume (vph)	168	284	498	6	210	32	519	1205	10	66	959	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00		0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		0.98		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583		1828		3433	3535		1770	3539	1583
Flt Permitted	0.18	1.00	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	341	1863	1583		1809		3433	3535		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	183	309	541	7	228	35	564	1310	11	72	1042	123
RTOR Reduction (vph)	0	0	218	0	3	0	0	0	0	0	0	56
Lane Group Flow (vph)	183	309	323	0	267	0	564	1321	0	72	1042	67
Turn Type	pm+pt	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)	47.3	47.3	47.3		28.4		30.8	87.3		11.9	68.4	68.4
Effective Green, g (s)	47.3	47.3	47.3		28.4		30.8	87.3		11.9	68.4	68.4
Actuated g/C Ratio	0.30	0.30	0.30		0.18		0.19	0.55		0.07	0.43	0.43
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	229	550	467		321		660	1928		131	1512	676
v/s Ratio Prot	c0.07	0.17				c0.16	c0.37			0.04	0.29	
v/s Ratio Perm	c0.16		0.20		0.15							0.04
v/c Ratio	0.80	0.56	0.69		0.83		0.85	0.68		0.55	0.69	0.10
Uniform Delay, d1	46.7	47.6	49.9		63.5		62.4	26.4		71.5	37.2	27.4
Progression Factor	2.01	1.90	3.14		1.00		1.22	0.45		1.00	1.00	1.00
Incremental Delay, d2	16.1	1.2	4.0		16.5		7.4	1.4		4.7	2.6	0.3
Delay (s)	109.9	91.5	160.7		80.0		83.3	13.2		76.1	39.8	27.7
Level of Service	F	F	F		E		F	B		E	D	C
Approach Delay (s)		131.0			80.0			34.2			40.7	
Approach LOS		F			E		C				D	

Intersection Summary

HCM 2000 Control Delay	61.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: NE 1st Avenue & Pembroke Road

PM Future Total

2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	116	1030	0	0	976	38	242	281	40	0	0	0
Future Volume (vph)	116	1030	0	0	976	38	242	281	40	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.95				
Frt	1.00	1.00			0.99			0.99				
Flt Protected	0.95	1.00			1.00			0.98				
Satd. Flow (prot)	1770	3539			3519			3428				
Flt Permitted	0.95	1.00			1.00			0.98				
Satd. Flow (perm)	1770	3539			3519			3428				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	126	1120	0	0	1061	41	263	305	43	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	3	0	0	0	0
Lane Group Flow (vph)	126	1120	0	0	1101	0	0	608	0	0	0	0
Turn Type	Prot	NA			NA		Split	NA				
Protected Phases	13	5	13			5		7	7			
Permitted Phases												
Actuated Green, G (s)	67.5	117.5			45.5			33.5				
Effective Green, g (s)	67.5	117.5			45.5			33.5				
Actuated g/C Ratio	0.42	0.73			0.28			0.21				
Clearance Time (s)	4.5				4.5			4.5				
Vehicle Extension (s)	3.0				3.0			3.0				
Lane Grp Cap (vph)	746	2598			1000			717				
v/s Ratio Prot	0.07	c0.32			c0.31			c0.18				
v/s Ratio Perm												
v/c Ratio	0.17	0.43			1.10			0.85				
Uniform Delay, d1	28.8	8.3			57.2			60.8				
Progression Factor	0.06	0.91			0.38			1.00				
Incremental Delay, d2	0.3	0.4			57.7			11.9				
Delay (s)	2.1	7.9			79.8			72.7				
Level of Service	A	A			E			E				
Approach Delay (s)		7.3			79.8			72.7			0.0	
Approach LOS		A			E			E			A	
Intersection Summary												
HCM 2000 Control Delay		47.8			HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio		0.81										
Actuated Cycle Length (s)		160.0			Sum of lost time (s)			27.0				
Intersection Capacity Utilization		61.9%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
9: Dixie Highway & Pembroke Road

PM Future Total

2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↓			↑↓					↓	↑↑↓	
Traffic Volume (vph)	0	977	43	70	1121	0	0	0	0	153	285	128
Future Volume (vph)	0	977	43	70	1121	0	0	0	0	153	285	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5					4.5	4.5	
Lane Util. Factor		0.91				0.95				0.86	0.86	
Frt		0.99				1.00				1.00	0.96	
Flt Protected		1.00				1.00				0.95	1.00	
Satd. Flow (prot)		5053				3529				1522	4582	
Flt Permitted		1.00				0.53				0.95	1.00	
Satd. Flow (perm)		5053				1860				1522	4582	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1062	47	76	1218	0	0	0	0	166	310	139
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	0	0	48	0
Lane Group Flow (vph)	0	1106	0	0	1294	0	0	0	0	149	418	0
Turn Type	NA		custom		NA					Perm	NA	
Protected Phases	4 9				2 3 4 9						1 10	
Permitted Phases				2 3						1 10		
Actuated Green, G (s)	46.5				118.5					32.5	32.5	
Effective Green, g (s)	46.5				118.5					32.5	32.5	
Actuated g/C Ratio	0.29				0.74					0.20	0.20	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	1468				1377					309	930	
v/s Ratio Prot	0.22											
v/s Ratio Perm					c0.70					c0.10	0.09	
v/c Ratio	0.75				1.49dl					0.48	0.45	
Uniform Delay, d1	51.5				17.7					56.3	55.9	
Progression Factor	1.00				1.64					1.00	1.00	
Incremental Delay, d2	2.2				1.5					1.2	0.3	
Delay (s)	53.8				30.5					57.5	56.3	
Level of Service	D				C					E	E	
Approach Delay (s)	53.8				30.5			0.0			56.6	
Approach LOS	D				C			A			E	
Intersection Summary												
HCM 2000 Control Delay	44.4				HCM 2000 Level of Service					D		
HCM 2000 Volume to Capacity ratio	0.95											
Actuated Cycle Length (s)	160.0				Sum of lost time (s)					27.0		
Intersection Capacity Utilization	72.7%				ICU Level of Service					C		
Analysis Period (min)				15								
dl	Defacto Left Lane. Recode with 1 though lane as a left lane.											
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis
12: NE 3rd Street & Federal (US 1)

PM Future Total

2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑↑		↑	↑↑	
Traffic Volume (vph)	138	104	107	31	97	77	164	1381	13	36	1123	69
Future Volume (vph)	138	104	107	31	97	77	164	1381	13	36	1123	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	0.93		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1721		1770	1739		1770	3534		1770	3508	
Flt Permitted	0.41	1.00		0.33	1.00		0.18	1.00		0.13	1.00	
Satd. Flow (perm)	772	1721		606	1739		332	3534		247	3508	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	150	113	116	34	105	84	178	1501	14	39	1221	75
RTOR Reduction (vph)	0	23	0	0	18	0	0	0	0	0	3	0
Lane Group Flow (vph)	150	206	0	34	171	0	178	1515	0	39	1293	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	30.5	30.5		30.5	30.5		120.5	120.5		120.5	120.5	
Effective Green, g (s)	30.5	30.5		30.5	30.5		120.5	120.5		120.5	120.5	
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.75	0.75		0.75	0.75	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	147	328		115	331		250	2661		186	2641	
v/s Ratio Prot		0.12			0.10			0.43			0.37	
v/s Ratio Perm	c0.19			0.06			c0.54			0.16		
v/c Ratio	1.02	0.63		0.30	0.52		0.71	0.57		0.21	0.49	
Uniform Delay, d1	64.8	59.5		55.5	58.1		10.5	8.5		5.8	7.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.40	0.62	
Incremental Delay, d2	79.7	3.7		1.4	1.4		15.9	0.9		2.2	0.6	
Delay (s)	144.5	63.2		57.0	59.5		26.4	9.4		4.5	5.3	
Level of Service	F	E		E	E		C	A		A	A	
Approach Delay (s)	95.4				59.1			11.2			5.3	
Approach LOS		F			E			B			A	
Intersection Summary												
HCM 2000 Control Delay				20.8			HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio				0.77								
Actuated Cycle Length (s)				160.0			Sum of lost time (s)			9.0		
Intersection Capacity Utilization				75.2%			ICU Level of Service			D		
Analysis Period (min)				15								
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
15: Federal (US 1) & Atlantic Shores Boulevard

PM Future Total

2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑↑	↑↑		↑↑	↑↑	
Traffic Volume (vph)	114	42	95	122	35	250	52	1380	125	173	1151	76
Future Volume (vph)	114	42	95	122	35	250	52	1380	125	173	1151	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	0.97	0.95		0.97	0.95	
Frt	1.00	0.94	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1661	1504	1770	1863	1583	3433	3495		3433	3506	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1661	1504	1770	1863	1583	3433	3495		3433	3506	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	124	46	103	133	38	272	57	1500	136	188	1251	83
RTOR Reduction (vph)	0	18	64	0	0	242	0	2	0	0	2	0
Lane Group Flow (vph)	124	60	7	133	38	30	57	1634	0	188	1332	0
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	16.6	16.6	16.6	17.9	17.9	17.9	6.9	93.4		14.1	100.6	
Effective Green, g (s)	16.6	16.6	16.6	17.9	17.9	17.9	6.9	93.4		14.1	100.6	
Actuated g/C Ratio	0.10	0.10	0.10	0.11	0.11	0.11	0.04	0.58		0.09	0.63	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	183	172	156	198	208	177	148	2040		302	2204	
v/s Ratio Prot	c0.07	0.04		c0.08	0.02		0.02	c0.47		c0.05	0.38	
v/s Ratio Perm			0.00			0.02						
v/c Ratio	0.68	0.35	0.05	0.67	0.18	0.17	0.39	0.80		0.62	0.60	
Uniform Delay, d1	69.1	66.7	64.6	68.2	64.4	64.3	74.5	26.0		70.4	17.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.93	1.35		0.88	0.78	
Incremental Delay, d2	9.5	1.2	0.1	8.6	0.4	0.5	1.3	2.7		2.8	0.9	
Delay (s)	78.7	67.9	64.7	76.9	64.8	64.8	70.5	37.8		64.5	14.7	
Level of Service	E	E	E	E	E	E	E	D		E	B	
Approach Delay (s)		72.0			68.4			38.9			20.8	
Approach LOS		E			E			D			C	
Intersection Summary												
HCM 2000 Control Delay				37.5			HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio				0.75								
Actuated Cycle Length (s)				160.0			Sum of lost time (s)			18.0		
Intersection Capacity Utilization				75.2%			ICU Level of Service			D		
Analysis Period (min)				15								
c Critical Lane Group												